This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

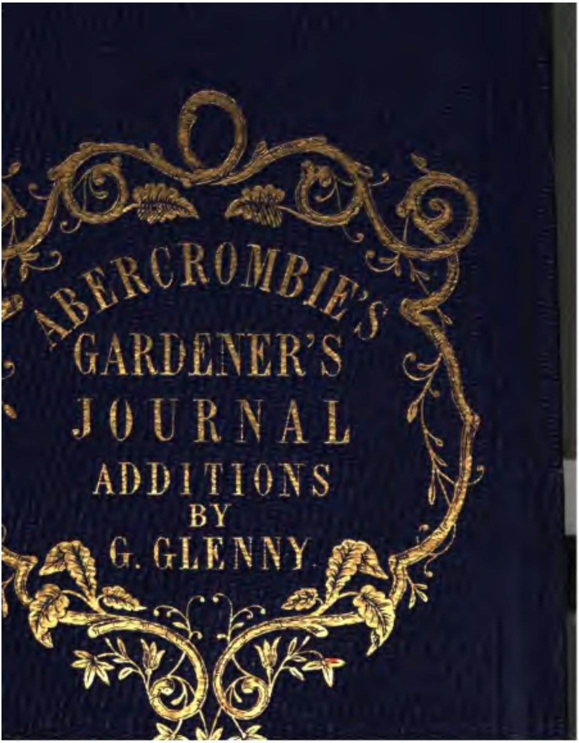
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



ABERCROMBIE'S GARDENER'S JOURNAL

ADDITIONS
BY
G. GLENNY.

THE GARDENER'S

POCKET JOURNAL,

AND

Daily Assistant in English Gardening,

BY JOHN ABERCROMBIE.

THIRTY-FIFTH EDITION.

WITH A TREATISE ON DRAWING-ROOM GARDENING,
WARDIAN CASES, AQUARIUMS, AND FERN-CULTURE,

BY GEORGE GLENNY, F.H.S.,

AUTHOR OF THE "PROPERTIES OF FLOWERS AND PLANTS," EDITOR OF THE
"GARDENER'S GAZETTE," "GLENNY'S GARDEN ALMANACK," &c., &c.

LONDON:
WILLIAM TEGG AND CO., 85, QUEEN STREET,
CHEAPSIDE.
1857.

141. c. 1.

BIBLIOTHECA·BODLEIANA·

A BRIEF SKETCH OF THE LIFE

OF

JOHN ABERCROMBIE.

It is a fact known to all readers of biography, that those men of every age and nation, who have done the most for the benefit of mankind, have risen from an obscure origin, and have attained an elevated station in their respective line of pursuit, chiefly from their own abilities and perseverance. Mr. John Abercrombie, the author of the present volume, is an addition to the number of such useful and meritorious individuals.

He was born at Edinburgh, in the year 1726. His father was a market-gardener, who kept extensive grounds near that city; and who, we believe, lived to a great age. He had two sons; the younger, named George, went to sea in the early part of his life, and was lost in the year 1790, on the coast of America; but the other, the author of this book, having been accustomed to assist in the gardens, became so much attached to that pursuit that he devoted his whole attention to improve and simplify horticulture. At fourteen years of age, his father took him as an apprentice. Nothing seems to have occurred in the early part of his life worthy of particular mention, except that he was in the habit of committing to paper all the observations which he made in his profession, though without the remotest view of their publication. The education he received was, as may be supposed, superficial; he had, therefore, no literary pretension; but he was possessed of a habit of reasoning upon just principles, which rendered him a very agreeable companion. He was present at the famous battle of Preston Pans, which was fought close to his father's garden *walls*; and from his acquaintance with all the circumstances of the Rebellion, he could have written a more correct history of it than most which have appeared. His principles, however, were truly loyal; and he always avowed himself what was called a "king's man."

Soon after his apprenticeship had expired, he came to London, and was engaged as a practical gardener by several noblemen and gentlemen, whose names are as follow, viz., Lord Bateman, Lord Kensington, Sir James Douglas, Sir Robert Darling, 'Squire Smith and 'Squire Alveres; and in this position he continued for many years.

While in a situation of the above kind, he married a young woman belonging to the family of Sir James Douglas, by whom he had sixteen daughters and two sons, John and George, both of whom entered into his Majesty's service by sea, and were in many severe engagements, particularly the latter, who received several wounds during a service of almost fifteen years.

When he first came to London, about the year 1751–2, he was engaged by Sir James Douglas, with whom he continued till 1759, during which time his wife was delivered of three children. Apprehensive they might be deemed troublesome in the family, he returned to Scotland, with the intention of commencing kitchen and market gardener; but not finding things suitable to his mind, and being much attached to England, in the course of ten months he came back, and was engaged as a practical gardener by the above noblemen and gentlemen, with whom he lived for several years—we believe till th
year 1770. The last-mentioned gentleman, 'Squ
Alveres, of Hackney, made him a very lib
present (as had had several other gentlemen
before), for producing on the table, on Chri
day, a handsome cucumber of his own raisin

This was the last place in which he lived a
dener. He took a kitchen garden and a sma
sery-ground, lying between Mile End-road and

ney, and attended Spitalfields market till the year 1771-2, when he entered into business as a publican, procuring a license for that purpose to a house in Dog-row, Mile End,—afterwards converted into the Artichoke tea-gardens. His wife not approving of the situation, persuaded him to leave it, which he did, by selling the lease for two hundred pounds. He then went into the seed and nursery business, at Newington and Tottenham-court, where he also carried on an extensive trade as a kitchen and flower gardener.

About the year 1778 he was advised to arrange for the press the substance of his voluminous observation, and accordingly prepared the work called "Every Man his own Gardener," which has passed through a great number of editions. So diffident was he of his ability for writing, that he actually presented twenty pounds to THOMAS MAWE, gardener to the then duke of Leeds, to allow the work to be published under his name, and to whom, of course, it has always been attributed, though the real author was Abercrombie. Afterwards, however, becoming more confident, he published the present work, which at first experienced a sale almost unprecedented, and has for some time regularly passed through an edition of two thousand copies per year. It underwent a thorough revision by him a few weeks previous to his death; and he actually read a proof of the *last sheet* but a few days before the accident which terminated his existence. That event happened on the 2nd of May, 1806. He had passed the evening in a respectable house of public resort, near his residence at Somers Town; and the evening being dark, he fell, on his return, down a few steps that led from the premises, by which he was so much injured as never to rise from the bed to which he was carried. He was buried at St. Pancras, in the county of Middlesex, in the eightieth year of his age.

Although an old man, he was remarkably active *to the* very moment of his accident; and it was somewhat singular, that his only son then had a little before received a similar hurt, bj on shipboard, and was for some time dangerou They received each other's letters, conveying ac of these accidents, on the same day ; but our received no more, for he died that night at o'clock. It is astonishing that for the last t years of his life, he lived principally on tea, u three times a day. Often has he had tea made dinner, seldom or ever eating any meat, except he paid or received a visit. He has freq averred that tea and tobacco were the pri promoters of his health, and his pipe was hi companion in the morning, and last at night has been seen smoking for six hours togethe even while he was engaged in writing for the He never remembered to have taken a d physic in his life prior to this fatal accident of having a day's illness but once. He was solicited to superintend the gardens of the Er of Russia ; but, on repairing to the Downs f purpose of embarkation, and viewing the va panse before him, the idea of a sea-voyage tool an effect upon his mind, that he declined goin sent one of his publications, "Every Man hi Gardener," which was much approved of, and copies were soon sent for. Indeed, the circu of this work is truly astonishing, for his son de that he had purchased that book at Madras f purpose of bringing it home, and that it is in request at Bengal, and all over British India.

He had corrected for the press a short time his death, a new edition of "The British Frui dener," which has since experienced a very ext sale. Besides this and the present work, he many other works on gardening, such as the " tree Pruner;" the "Gardener's Daily Assist the "Gardener's best Companion ;" the "Gard *Vade-Mecum*," &c. &c.

PREFACE.

As the principal books of general Gardening are more or less of some considerable size, in which either the prices are higher than may be generally convenient or agreeable to many persons; or, that others may not have leisure or inclination to consult the larger works of this kind, yet may be desirous of having occasional information, on a concise plan, of the proper seasons and methods of sowing, planting, propagating, &c., and the various other practical operations,—to accommodate such, it was thought most advisable to publish this small Journal, displaying a complete register of the general practical works throughout the year, in monthly directions, in the several garden departments, with principal explanatory instructions for the different methods of performing them successfully, agreeable to practical experience.

In the different districts—consisting of the kitchen and fruit garden, and orchard, flower garden, pleasure grounds, shrubberry, and plantations, nursery, green-house, and hot-house, hot-beds and forcing-house, &c.—the essentials of the whole practical business is fully displayed under their respective heads for each month; together with the general culture of the various different sorts of plants, trees, shrubs, flowers, fruits, &c., in each respective department, in a manner, which, it is presumed, will prove practically useful, both to many gardeners by profession, in briefly reminding them of the various necessary works in the proper seasons, and different methods of performing the general and particular operations, and to others who are not gardeners, and who may manage their own gardens occasionally, or give directions for the cultivation thereof, it will convey practical instruction in the several branches.

But as some particular operations would admit of a more extensive explanation than can be inserted in this small work, though the essentials of which, however, are given, those who may require a fuller display, are referred to some of my larger works on gardening, such as "Every Man his own Gardener," &c.

It is, however, proper to remark, that in this edition all the most essential articles are enlarged upon, and the whole thoroughly corrected, greatly enlarged, and very considerably improved; and to which are added, the monthly works of the nursery—a department of material horticultural utility; also many new principal articles, and improved methods of culture; with great improvements on the general list of plants, trees, flowers, shrubs, &c., adapted for every garden department, green-house, hot-house, &c.

JOHN ABERCROMBIE.

LONDON.

PREFACE TO THE SEVENTEENTH EDITION.

THE whole of this work has been completely revised, and the articles arranged so as to be more easily found under each head, commencing with the general directions of the work to be done, and ending with an alphabetical disposition of the particular plants; to which are added all the modern improvements since the death of the celebrated Abercrombie, and some general directions for the destruction of insects, vermin, &., so as to make it a complete work.

M. A. M.

HACKNEY.

OBSERVATIONS.

NOTE.—That in this small work, in order to admit of introducing the practical matter as fully as it could possibly be done, I have used the abbreviations of b. m. l. relating to the different times of the month for performing the various works: (b.) stands for the beginning; (m.) for the middle; and (l.) for the latter end of the respective months; implying, that the different works and operations may be performed accordingly; and where (b. m.) occurs, denotes that the particular works may be performed in the beginning or middle; and (b. m. l.) in the beginning or middle and latter end of the months; and similarly where (b. l.) occurs.

But as great part of the directions are without any of the above initials, or any relative intimations, it may generally be considered that they may be respectively performed any time of the month occasionally.

And as several articles, which often occur, are also briefly mentioned, such as aromatics, annuals, biennials, perennials, bulbous and tuberous roots, deciduous trees and shrubs, &c., those who may require an explanation of these terms, are referred to the list of plants at the end of the book.

THE GARDENER'S
POCKET JOURNAL.

JANUARY.

THE KITCHEN GARDEN.

At this season the principal business in the kitchen garden is to prepare ground for future crops, by manuring, digging, and trenching; protecting tender plants in frames, hand-glasses, borders, &c., in frosty and other inclement weather; making hot-beds for early forcing, where required; and only a few articles are necessary to be sowed and planted, and these principally in but small portions, some on warm compartments, in the full ground, if dry, mild, settled weather; and some in hot-beds, for early crops, as hereafter explained under the respective heads,

Where a new kitchen garden is forming or intended, the preparation of the ground should now be forwarded by digging, trenching, and occasionally manuring with dung, where needful, or also applying portions of fresh earth to particular parts where it may seem necessary, having the whole one or two spades in depth of good fertile soil; and when wholly prepared as above, divide and lay out the ground into regular compartments, generally forming a border along next the outward fence, three or four to five or ten feet wide; and next to this allot the same width for a walk, then a border three or four to five or six feet wide; and within this have the main quarters for the principal general crops divided into beds and other compartments.

Ground vacant.—Prepare at all opportunities for early nd general crops, by augmentation of dung for manure, here most needful; and by digging and trenching the ground in rough ridges to improve by the weather till wanted for sowing and planting, which can then be expeditiously levelled down in an improved fertilized state for the reception of the respective seeds, plants, and roots.

For natural ground crops.—dig some warm borders for early produce, and main quarters for sowing and planting larger supplies.

In frosty weather—wheel in old dung for manure; fresh horse-dung for hotbeds; rich fresh earth, loam, and rotted dung for composts, and turn over former-made composts; likewise protect tender plants from frost, as radishes, cauliflowers, lettuce, salading, &c.

In open weather—forward all necessary digging and trenching, laying the ground in ridges, as before intimated.

The work of sowing and planting—may be performed moderately, in some particular crops only, in the natural ground, when open dry weather, and in hotbeds for early crops.

Sow in the natural ground—in open dry weather, upon south borders and other warm compartments, small portions of radishes, spinach, lettuce, peas, beans, early York, and sugar-loaf cabbage, parsley, carrots, a few Welch and other onions, to draw young for sallads, &c.

Plant in the open ground, if mild settled weather—cabbages, beans, coleworts, horse-radish, mint roots, Jerusalem artichokes, liquorice, garlic, shallots, cives, &c. and plant for seed old cabbages, savoys, carrots, parsnips, onions, turnips, and red beet.

Plant in hot-beds—asparagus, kidney-beans, mint-roots, peas, Mazagan-beans, potatoes, mushroom-spawn, strawberries, tansey, tarragon, and young plants of cucumbers and melons, when required in early production.

Make hotbeds—generally of well prepared horse dung, as hereafter explained, or occasionally of tanner's bark: but for general hotbeds, dung, as above, is the most eligible for common use, both as being more readily and cheaper obtained in most places, and more convenient and effective on most occasions, for common hotbeds, which in dimensions make in width and length for a one, two, or three-light garden frame, or two or more such frames as may be required, making the bed from two feet and a half, to three and a half high in dung, and earthed within the frame six *or eight inches* thick, with rich light earth, in which to sow *or plant.*

Hot beds—give careful attendance both to admit air every favourable day, at the upper ends of the glasses, raised half an inch to one or two inches, shutting close before evening or when the weather changes severely cold; and to cover the glasses every evening with mats or straw, and uncover in the morning; as also to support a good moderate heat, by applying linings of hot dung to the sides, according as it declines; and occasionally to give very light waterings when the earth becomes dry.

——— admit air to hot-beds in a small degree, every day when the bed is of good heat.

——— cover the glasses of hotbeds every evening soon after sun-setting, and uncover about sun-rising in the morning, or soon after, especially in mild weather; but at any rate, give all possible advantage of day-light and air to the plants in hotbeds now in these short days; as the heat of the bed will continue them in growth, and if kept too close, would draw them up weak, dwindling, and unsuccessful.

——— line hotbeds with straw litter round the sides, to defend them from severe weather, and if declining in heat use hot dung.

Hot-bed dung—provide and prepare a proper quantity as may be required, ready in eligible order for making hotbeds where intended for early crops above-mentioned; having for this occasion fresh horse stable dung, the long and short warm moist litter together, forking it up in a heap to mix all parts equally, turning it over once or twice in the course of a week or fortnight, when it will be in good preparation for hot-beds, and for after linings.

Plants forcing in hot-beds—may be proceeded in any time this month, for various early crops.

Dung for manure—wheel in old hot-beds and dung-hills when frosty, or dry weather, upon different vacant compartments, where most wanted, and for principal crops.

Composts—prepare for hotbeds with rich earth, light surface loam, and rotten dung, all blended together in a heap.

——— turn former made composts, breaking the clods, and mixing the parts well together.

——— lay some prepared composts, or rich light earth in a dry airy shed or other cover, for a month or more previous to making hotbeds, that it may be moderately dry, and of a proper temperature for seed and young cucumber and melon plants.

For hot-house forcing—sow and plant in pots, &c. any time this month, cucumbers, kidney-beans, strawberry-plants, mint-roots, small sallading, &c. and place them in a hothouse, pinery-stove, vinery, or any forcing-house at work; they will be obtained for early use.

Plant for seed—good headed old cabbages and savoys; also carrots, parsnips, red beet, turnips, onions, &c. [See OCTOBER.

Artichokes—where not landed up last month, or November, should now be done (b): or, if severe frost set in' cover each plant round with light mulchy stable litter.

Asparagus to force—for early production, plant three years old plants in a hotbed, to gather next month.—[For the method of making and planting the bed, see OCTOBER, NOVEMBER, &c.

Asparagus beds now in forcing—keep to a proper moderate heat, by applying straw litter round the sides, or when the heat declines, add a lining of hot dung; give air occasionally every day, especially when the shoots are advancing, by opening the glasses a little; and cover the glasses every night with straw or garden mats.

Beans—plant early kinds (b. m.) in open weather, if before omitted, or to succeed any former planted: also a good crop of long pods, Windsor, Toker, or other broad beans in rows a yard asunder, three or four inches apart in the row, and two inches deep.

——— hoe and earth up early beans, that are advanced an inch or two high or more.

——— *to force*—plant some young early plants of the mazagans, in the borders of a forcing-house, or in hotbeds.

Cabbages—plant out some strong early plants (m. l.) if open weather, in rows twelve or fifteen inches to two feet asunder.

——— sow early, and red cabbage seed (m. l.) a small portion in a warm border, or under a frame, or in a hotbed, for earlier transplanting.

——— plant old cabbages for seed [See OCT.

Cardoons—cover in hard frosts with mats, or straw round each plant; or if of tall growth, loosen the roots, turn down the plants to the ground, and cover them thick with long litter.

Carrots—sow a small portion on a warm border to draw early; or for earlier young carrots sow in a hotbed.

Cauliflower plants—in frames and under hand-glasses;

give plenty of air daily in open dry weather, but keep the glasses closed when wet or very cold, frosty, and at night; and also during severe frosts, cover them with litter or mats; and pick off decayed leaves.

———— defend the plants pricked in borders, with mats or light dry straw litter, in rigorous frosts.

————sow a little seed (1.) in a hot-bed, to have a supply of young plants in the spring, to succeed the winter-standing plants, in case those should be killed by the frosts, or that none were raised last autumn to stand the winter; in either case, those now sowed will be of proper growth for planting out the middle or latter end of April.

Celery—earth up in open weather, the full grown and advancing crops according to their growth; and at the approach of severe frost, cover some best plants, and remove some also under shelter.

Cresses, mustard and rape—sow in a hot-bed under frames, &c. once a fortnight to gather young for small sallading, or in open weather in beds of natural earth under glasses.

Cucumbers—for earliest crops, may be sowed in hotbeds any time in this month; and when the plants are come up with the first or seed leaves half an inch broad, prick them in small pots, three or four in each, to remain till advanced in the second or rough leaves two or three inches, then transplant into larger hotbeds for fruiting in March, April, &c. [See FEBRUARY, MARCH, and APRIL, for further directions.]

———— Sow more seed two or three times in the same hotbed, at a week's interval, to have plenty of young plants in case of accidents.

———— sow or plant in pots, &c. in a hothouse.

Endive to blanch—tie up the leaves of some full grown plants every week in dry open weather; or if wet ground, remove some with small balls of earth to the roots into the south side of a raised sloping bank of dry light earth, defended with a frame, &c. to remain more secure from rotting by wet at this season, which endive is very liable to in wet ground in winter. [See NOVEMBER.] And in frosty weather cover some principal plants; remove others under cover, or into a frame at the approach of severe frost, and lay them into a ridge of dry earth or sand, to whiten covering with long litter.

Horseradish—provide offsetts, of the small side and bottom of the large roots when digged up for use, cutting off the top part two inches long for planting.

——— plant (m. l.) offsetts one foot asunder, in rows two feet distant, and twelve inches deep, planted either by dibble that depth, or if a light yellow soil, by trenching the ground in regular trenches two feet wide, and the depth as above; and along the bottom of each trench plant a row of sets by dibble; inserted only just down to their tops, and in digging the next trench, turn in the earth upon the sets twelve inches deep, and so proceed trenching; and thus will be produced long straight root shoots.

Jerusalem artichokes—may be planted, (m. l.)

Kidney Beans—if required early, sow or plant (m. l.) some early dwarfs in a hotbed, or in pots, placed in a hothouse, which will be considerably more successful in growth and general production; having moderate sized pots (24s.), filled with dry light rich earth; plant four or five beans in each pot an inch deep; and when they have sprouted, and after the plants come up, supply moderate waterings, and they will grow freely, and produce an early spring crop in March, &c. [See FEBRUARY.]

Lettuce plants—in frames or underhand glasses give the full air in all mild dry days, and defend with the glasses at nights, and during excessive wet, and sharp cold; and keep them close in frosty weather.

——— sow a small portion of seed (m. l.) in a warm border, or under a frame, or in a gentle hotbed for early transplanting.

——— *to force*—transplant some of the largest plants, with small balls of earth about the roots from borders, &c. into a hotbed.

Liquorice—may now be planted (m. l.) where intended for its roots; and all liquorice of three years growth digged up. [See FEBRUARY AND DECEMBER.]

Melons—if required in early maturity, may also be sowed in a hotbed, and managed as directed above for the cucumbers.

Mushroom beds—defend constantly with dry straw or long litter a foot thick, and over which spread large garden mats, the more effectually to keep out cold and wet from the bed, which would perish the spawn.

——— should be made for spring productions. [See SEPTEMBER, &c.]

——— *in production* should be looked over once or twice a-week, to gather the mushrooms while young or of middling growth; covering up the beds again directly.

Winter young onions—keep clean from spreading weeds, by careful hand weeding.

——— *old dried housed onions*—examine, to pick out decayed ones, and such as begin to sprout, and plant them for scallions, or sear the base of the roots with a hot iron.

——— sow a little seed (m. l.) to raise a small supply of early young plants for sallads, &c.

Parsley—may be sowed (m. l.) in open weather.

Peas—sow early hotspurs, on south borders, and larger supplies in the main quarters, all in drills, two feet and a half, or a yard asunder; also a first crop of marrowfats, in drills a yard or three feet and a half distant, especially if they are intended to be sticked, by which they will be doubly productive.

——— draw a little earth to early peas that are up in dry and open weather; and in severe frost it would be advisable to cover some rows of the earliest crop with dry straw litter, &c.

——— force some early young plants of the dwarf frame pea in a hotbed; or sow some thick in a hotbed to transplant into larger hotbeds when an inch or two high; or sow some early kinds at once in a larger hotbed, in cross rows, to remain where sowed; some also sown and planted in pots, may be placed in a forcing frame, &c.

Potatoes—if young ones are required early, plant some early dwarf kinds in a hotbed.

Radishes—sow early short-topped kinds on a warm border, &c. cover them with straw two inches thick, till they come up; after which keep them uncovered every mild day, covering them again towards the evening, and constantly in frosty weather.

——— some may be sowed in a hotbed to draw earlier to three or four weeks; make a moderate hotbed for a one, two, or three-light garden frame, and earthed within the frame six inches thick; sow the seed on the surface, and earthed over about half an inch in depth: put on the glasses, and when the plants come up, admit fresh air moderately every day. [See *Hotbeds*, *page* 11.]

Small Sallading—sow once a week or fortnight, as may be required, in a hotbed, cresses, mustard, sallad-radish, lap-lettuce, all *to* cut young; or if mild open weather, sow those seeds in a bed of natural earth, defended with frames and lights, or hand glasses, &c.

Spinach—sow a first early crop (m. l.) of the round leaved kind, in a warm situation.

——— keep the winter spinach, raised last autumn, always very clear from weeds; and in strong plants gather some for use of the larger outer leaves, the others will advance in succession.

Strawberries to force—for early fruit, plant some two years old plants, with balls of earth about the roots in pots and place in a hotbed, or rather, at this season, in a hothouse, &c.

Tansey, tarragon, and mint—if required early, plant in a hotbed.

FRUIT GARDEN AND ORCHARD.

The business of planting and pruning should now be forwarded at all proper opportunities, both in wall, espalier, and standard fruit trees, in the garden and orchard, &c.

Orchards—plant different sorts of standard fruit-trees, as apples, pears, plums, and cherries, for the principal supply, twenty to thirty, or forty feet asunder; and also other kinds usually trained as standards, but more plentifully of apples and pears; or generally a larger portion of apples.

Prepare borders, &c.—where intended to plant wall espalier and standard fruit trees, by necessary manuring with good dung, if the ground is poor, and by proper digging or trenching the borders, &c.

——————— where a general new plantation is intended, the borders should be trenched one or two spades deep, where the depth of good fertile soil admits, or if poor ground or bad soil, plenty of dung should be applied, and some good loam or other fertile fresh or compost of good substance; but if already a good cultivated fertile soil, no more will be necessary than to dig an aperture for each tree.

Planting—apples, pears, plums, cherries, medlars, quinces, mulberries, filberts, walnuts, chesnuts, services, gooseberries, currants, raspberries, &c. may be done in open weather, and in mild settled weather, peaches, nectarines, apricots, grape-vines, and figs.

Pruning and nailing—should now be forwarded at all convenient opportunities, in wall trees, espaliers, and standards, both in open weather, and when but moderate frosts.

Propagate fruit-trees—by suckers, layers, cuttings, &c. [See FEBRUARY.]

Dig fruit-tree borders—when the trees are pruned and nailed.

Apple-trees—trained in espaliers, and against walls, prune and train as directed for the plums, pears, &c. their mode of bearing being similar; do not shorten the branches when not extended beyond their proper limits.

Medlars and quinces—in espalier trees prune and train in the same manner, their way of bearing being similar to the pears, apples, &c.

Fig-trees—defend some choice fig-trees in severe frosts with mats; the shoots being succulent are liable to suffer.

——— *pruning*—is advisable to defer till next month.

Plant suckers and cuttings—gooseberries and currants, to raise supplies of new plants where required, detaching the bottom suckers with roots to each; and take cuttings of the young straight shoots of last summer, cut ten or twelve inches long, and planted in rows a foot asunder.

Gooseberries and currants—observe generally, if they are applied for at the public nurseries, to choose three years old trees, with full heads, to form immediate bearers the ensuing season; plant some in a single range to divide large quarters, also in a row along the edges or borders, six or eight feet apart; and some in close plantations in continued parallel rows, or to obtain fruit earlier, against south walls and other exposures, at six to eight or ten feet asunder.

Dig between rows—of gooseberries, currants, and raspberries, when pruned, clearing out all root or bottom suckers from the main plants.

Prune many of the last summer shoots, only leaving a requisite supply in vacant parts, to furnish a proper head of branches, and to supply the place of any worn out or decayed wood; leave terminal ones for leaders to the general branches, shorten moderately general retained shoots, and lateral ones for leaders, those of middling growth, particularly of the gooseberry kind, shorten more sparingly; prune in a general manner long extended rambling growths, low stragglers, and very crooked reclining shoots; as when too considerably shortened, it occasions a confused production of superfluous shoots the following summer, detrimental to the fruit.

Raspberries—This is the time to plant young sucker shoots of last summer, produced from the roots of old plants, choose them strong about three or four feet growth detached with good roots, and prune the weak top part; plant them in rows four feet and a half or five feet asunder, by three feet, in the rows: prune old plantations, cutting out the dead stems, last summer's bearers, for the same shoots or stems never bear but once, being succeeded by young ones produced from the root every summer; which become bearers next year, and perish the following winter, and should now be cut out as above, close to the ground; and then thin the young shoots to three, four, or five of the strongest on each stock, and prune them at top moderately cutting away the weak bending part.

Plums, cherries, and pears—trained in wall-trees and espaliers, should also be forwarded now in the winter pruning: these trees bearing upon small short spurs, which continue several or many years in bearing, require, after being fully trained, only occasional supplies of young wood; therefore many of the superabundant and improper shoots of the preceding year, retained in summer, should now be pruned away, keeping however a sufficiency in vacant parts, and a leader to each mother branch (where there is room for extension,) all continued at their full length, except where any casually extend much beyond their limited bounds; and occasionally in vacancies, shortning some particular young shoots to obtain a farther supply of branches, training the whole regularly to the wall and espalier, four or five inches asunder.

Vines against walls—may be forwarded in pruning; and as they bear on the young wood only, leave a plentiful succession of the strong well placed last summer's shoots, cut the rest away, with part of the former bearers of the two last years, and long advanced naked old wood, to make room for training the present supply of young shoots, which now prune, to three, four, five, or six joints, according to their strength and situation in different parts of the tree; strong shoots in wide vacant spaces above and below, may be left eight, ten, or twelve joints long, and nail the whole regularly to the wall, at six or eight, to ten inches distance. [See February and March, &c.]

Plant Standards, in gardens, orchards, &c. Apples, pears, *cherries*, plums, disposed in ranges, at twenty or thirty to *forty or fifty feet distance*; abundantly of the two first but more apples than pears. Where there is a sufficient scope of ground, allot plenty of standards, for producing the principal supplies of fruit.

Plant also medlars, quinces, mulberries, filberts, hazelnuts, services, herberries, damsons, bullaces, walnuts, almonds, chesnuts, or only some of the most esteemed.

Considering that fruit-trees consist of full standards, half-standards, and dwarf standards, plant principally the former for the general supply, and occasionally some half-standards; and in small gardens may have half and dwarf standards, to take up less room, as being generally grafted, &c. upon moderate shooting or dwarf stocks; the trees growing with moderate or small heads accordingly, will bear sooner.

Stake standard trees—that have been lately planted, especially those with tall stems.

Mulch fruit-tree roots—of such as have been newly planted, laying strawy mulch on the ground over the roots to keep out the frost.

Espaliers—generally allot a range along the inward edge of the main borders surrounding the quarters of the kitchen garden, &c. principally for some fine eating apples, and pears, at twelve or fifteen to eighteen or twenty feet distance, and for some best cherries and plums, at fifteen feet, also apricots, figs, and vines, &c. having a trellis of stakes and poles, or regular post and railing, ranged close behind the trees, about four or five feet high, on which to train the branches horizontally, in the manner of wall trees.

Tie and nail espalier trees—when they are pruned, which may be effected by nailing as wall-trees, or with osier twigs, &c. arranging the branches in the same order and distance as advised for the wall-trees.

Wall-trees, prune—peaches, nectarines, apricots, retaining a plentiful supply of last summer's shoots, shortened one third or fourth of their length for bearers, prune out the superabundant ill placed and improper shoots, and part of the past bearers and naked old wood; and nail the whole regular to the wall horizontally about three to four or five inches asunder. [See FEBRUARY.]

Wall-trees—plant principally peaches, nectarines, apricots, vines, figs, best cherries, plums, pears, and finest eating apples, against southerly walls and other exposures fifteen to eighteen feet apart.

————*nail* them generally according as each tre is pruned, laying the branches horizontally, and having proper shreds and nails, fasten them in straight and regular, at three or four to five or six inches distance.

Young wall and espalier trees—that are in training, give necessary pruning, cut out all the foreright and other ill placed shoots, and train in the rest neatly to the wall and espaliers.

In fruit forcing-houses—for early fruits (b m.) begin the forcing by fire heat, &c. especially in vineries (b.) and in other fruit-houses (b. m.), observing to make the fires accordingly every evening and morning, &c. make also occasionally bark beds, or dung hotbeds, in the pit within or dung and bark together, the dung below and the tan at top. Sometimes fruit-forcing is effected wholly without fires, either by bark beds or dung hotbeds in the extended pit within the department; sometimes in a glass case or forcing frame fronted with glass work, and the forcing effected entirely by dung heat, by making a hotbed, either in an internal pit, or by strong hot dung linings applied outward to the back of the frame, half a yard or two feet wide, and five or six feet high.

FLOWER GARDEN, PLEASURE GROUND, &c.

Prepare new ground work—where intended for a flower garden, pleasure-ground, or shrubbery, &c. should now be forwarded; and the borders, beds, and other compartments, digged ready for planting in proper time, with flowers, shrubs, and trees, as it may be required.

Planting—may be performed in open weather in many sorts of bulbs, and other herbaceous plants, as well as in most sorts of hardy deciduous shrubs and trees.

Hardy herbaceous plants—of the perennial and biennial, fibrous, fleshy, and tuberous-rooted tribes, may be planted if open weather; such as asters, golden-rods, perennial sunflowers, campanulas, Canterbury-bells, asphodels, aconites, and many others.

Anemones and ranunculuses—may be planted in mild dry weather.

Annual flower seeds—may be sowed in pots (l.) as balsam, ten-week stocks, mignonette, sweet peas, candy-tuft. *virgin stock, dwarf* lark-spurs, &c. and placed in a hot house for early flowering; also, hardy annuals in borders, &c. towards (l.) if mild weather, as sweet pease, candytuft, lark-spurs, adonis, corn-bottles, dwarf sun-flower, persicaria, Venus-navel-wort, Venus-looking-glass, Lobels catchfly, pansies, nigella, &c. to flower early. [See FEBRUARY and MARCH.]

For forcing flowers—place pots and water glasses of bulbs in a hot house; also pots of pinks, roses, and other small or moderate growing flowering plants and shrubs.

Auriculas and carnations in pots—should, at this season be kept in a warm situation, in frames, or to have shelter of mats in severe weather: for although these plants are hardy enough to stand the weather, the giving any principal sorts occasional protection from frost, snow, and excessive rains, preserves them in strength and good condition, to flower in greater perfection at the proper season.

Tender or curious plants in pots—should now be protected from rigorous frosts: such as double wall flowers, double stocks, double sweet-williams, double-rockets, &c. also any curious tender evergreens and other shrubs; placing them either under garden frames, or any temporary shelter, or awning of mats, &c. pots of hardier plants, and shrubs, &c. should be plunged in some dry compartment, to guard the roots more securely from the frost.

Plant in pots—any desirable roots, plants, flowers, and shrubs, and some for forcing.

Beds of bulbous roots—of the more valuable kinds, defend in severe frost by a covering of mats, or long litter: as tulips, hyacinths, &c. also anemones and ranunculuses.

Bulbous roots—may be planted (m.l.) in open dry weather, both in the general flower borders and in beds, such as crocusses, snow drops, narcissusses, tulips, hyacinths, jonquils, daffodils, star-of-Bethlehems, fritillarias, bulbous irises, Persian irises, corn flags, or gladioles, polyanthus, narcissus, crown imperials, &c.

———— Observe in placing the bulbs in the borders, to plant large roots either singly towards the middle and front, or three or four together; and small roots, as crocusses, and snow-drops, &c. plant five or six in a clump:

————and in planting them in beds, each sort separately, place them in rows lengthwise, the small roots six inches asunder, the others, six to nine inches apart, two to three inches deep.

Bulbous roots—plant some in pots, either to blow in the house, or to place in a hot house, or hotbed, for early flowering, such as early dwarf tulips, hyacinths, jonquils, polyanthus, narcissus, common narcissus, soliel narcissus, Persian irises, or any other sorts required, of the moderate growing bulbs.

— ———————— or place any of the above in bulb water glasses, to blow in the apartments of a house, filling the glasses with soft water up to the concavity of the mouth, and place one bulb in each, with only the bottom part in the water, change the water once a fortnight, or when it becomes very foul and fetid.

Off-sets—of all kinds of bulbous roots remaining out of the ground may now be planted in beds (m. l.) if mild open weather.

Suckers plant—of roses lilacs, and various other shrubs in open weather.

Shrubberies prune and dig—cutting out long rambling shoots and other irregular growths; then dig the ground where the shrubs do not overspread the surface.

Shrubs and trees—of many different sorts may now be planted for ornamental and useful plantations when the weather permits.

Flowering shrubs—and other ornamental kinds may be planted now in shrubberies, &c. when the weather is favourable, especially most of the deciduous tribe, or occasionally some of the hardier sorts of evergreens.

Ornamental trees—mostly of the deciduous kinds, may also be planted for any decorative, or other plantations.

Evergreens—of the hardier sorts, as pine, fir, cedars, and several others of similar quality, may be planted (m.l.) if settled open weather.

Forest trees—may be continued planting in open weather for timber and other plantations.

Pruning shrubs and trees—may now be performed in most sorts where needful.

The stems and heads of trees, &c.—may now be pruned up from low straggling branches, and any occurring irregularities above.

Stake tall shrubs and trees—lately planted.

Mulch new planted trees and shrubs—of the more curious and tender sorts, by laying dry light, mulchy dung on the ground over the roots, to protect them from severe frost.

Tender curious evergreens, &c.—planted in the full ground over with mats in hard frosts; as magnolis, rhododendrus, broad-leaved myrtle, tea tree, &c.

And any young plants in pots, tender or curious evergreens or other plants, both shrubby and herbaceous, &c. if not removed in their respective pots to places of shelter, under frames or temporary awnings, it should now be done (b.); and in severe weather or frost, give protection with glasses to those in frames, and occasional covering of mats and straw litter; as also to those under awnings.

Grass lawns, &c.—pole and roll occasionally in dry open weather, to keep the surface clean, firm, and even. [See FEBRUARY and MARCH.]

———— may now lay grass turf for lawns and plats, &c. in open weather.

Clean borders, walks, lawns, &c.—from all weeds and rubbishy litter.

Edgings—of box and thrift may now be planted [See OCTOBER and NOVEMBER]: also of daisies, pinks, London pride, strawberries, mc.

Hedges—may be planted of white thorn or quicksets, or any other deciduous kinds, as privet, beech, elm, hornbeam, poplar, alder, &c. [See MARCH.]

———— clip hedges of deciduous kinds, omitted in summer, but not of evergreens now.

———— plash old run up hedges in outward, or division fences in gardens or fields.

WORK IN THE NURSERY.

Having had many intimations expressing a particular desire that the work of the nursery, omitted in former editions might be inserted so as to comprehend all the practical branches of horticulture, I have accordingly introduced the essentials of the practical works of that district, in monthly directions, conformably to that of the other departments.

The nursery is appropriated to the business of raising the various sorts of trees and shrubs, consisting of all the species and varieties of fruit, forest and ornamental trees, flowering shrubs and evergreens, by seeds, suckers, slips, layers, cuttings, grafting, budding, &c. performed occasionally at this season, but the greater part in the spring, summer, and more generally in autumn; the grafting and budding particularly the former, being always performed in the spring, and the latter in summer (JULY and AUGUST,) the young trees and shrubs being planted in nursery-rows remain two, three, or several years under requisite culture to attain proper growth for garden plantations; the particular process of which, and the general nursery culture, is explained in the monthly directions. At this season the principal works of the nursery consist in preparing ground for spring planting or transplanting various sorts of trees and shrubs, for sowing seeds, and planting cuttings, layers, suckers, &c. the giving occasional pruning to trees and shrubs, digging between the nursery rows thereof; and giving temporary protection to tender or curious sorts from severe frost, drawing or taking up trees, &c. of proper growth, as required for different plantations and other necessary works.

Dig or trench ground—ready fo planting out in spring, many sorts of young trees and shrubs, from seed-beds and other compartments, and for transplanting others, as occasion requires, from compartments, where formerly planted at small distances, and which now in their advanced growth require more room.

Pruning—trim up the stems of forest and ornamental trees, by cutting away all rude or large shoots, and shorten those of small growth to three or four inches; also prune any disorderly growths in the different sorts of shrubs, and in fruit trees; cut out all shoots produced on the stem, eradicate suckers rising from the roots; and prune any disorderly growth in the branches of the head.

——— reduce only casual rude rambling shoots, in evergreens; as any general close cutting would admit the cold too suddenly, and injure the interior young shoots and leaves.

Dig between the rows of trees and shrubs—of former planting, which should be performed annually in winter or spring, to run down all top-weeds, and for the benefit of the trees, &c. loosening the ground about their roots to encourage their growth as well as to have the ground appear neat and clean between the rows.

Planting and transplanting—may be performed (m.l, if open settled weather, in most sorts of hardy deciduous trees and shrubs where necessary, both in young plants *from seed-beds*, and others that have been planted in c partments, in which they remain too close, and require transplanting at wider distances; planting the whole in nursery-rows one or two, to three feet asunder, according to the size and nature of the growth of the different sorts.

Mulch the ground between young trees and shrubs—lately planted, especially of some principal sorts, and any more curious or tender kinds, spreading it on the ground close about the stems over the roots, to protect them more securely from the rigours of severe frost.

Protect tender exotic trees and shrubs—from severe frost, such as are growing in beds in the full ground, either by matting over the beds of young plants, or covering them above with dry long straw litter; and such as are in pots, should now, if not done before, be placed either in garden frames, defended with the glasses occasionally, or under proper awnings, to be covered with mats and long litter in severe weather, but to have the free air in mild dry days.

Plants in pots in general—both of all hardy curious sorts of trees, shrubs, &c. and others of a more tender nature, if not removed to a warm dry situation in the two last months, should now be done (b.), and it is advisable to plunge them in the earth down to the rims, to prevent the frost entering by the sides of the pots to the roots, also to spread some straw litter on the surface of the pots between the plants, to exclude the frost more effectually.

THE GREEN HOUSE.

At this season give good attention to preserve the green-house plants from frost in severe weather, and when mild to admit air, and to give occasional waterings.

In frosty weather—keep the windows of the green-house close shut; and when very rigorous frosts, defend the windows with shutters or mats; and, if flues, make moderate fires, evening and morning, or occasionally all day, when the frost is extremely severe.

Admit air—in mild weather, by opening the glasses moderately, from nine, ten, or eleven, till two, three, or four o'clock; but if the weather change, shut the glasses accordingly.

Keep the windows shut—always at night, and in cold, wet foggy, and frosty weather.

In very foggy weather—sometimes make moderate fires in the flues, if any, to expel the damps which would prove pernicious to many of the plants.

Watering—give occasionally in mild weather, according as the earth in the pots becomes dry; but always very moderate, and exceedingly sparing to the succulent plants, and by no means over-water any sorts at this season, observing generally for this occasion to have soft water, if possible, from a pond, river, brook, or some reservoir where it has remained exposed to and softened by the full air as hard water from a well, &c. immediately applied now, is often so sharp or chillingly affecting, as to occasion a defoliation or shedding of the leaves.

Decayed leaves—pick off when they appear on any of the plants.

Dead wood and decayed shoots—cut off as soon as they occur.

Loosen the earth—in the tops of the pots, if any is become of a binding nature, or mossy.

Frame green-house plants—such as myrtles, &c. wintered under deep garden frames, either in want of green-house room, or being wholly destitute of one, should have the free air every mild day, be kept close at nights, and well covered in frosty weather with mats and straw, &c. adding also a thick lining of stable litter along the outside of the frame in very severe frost.

HOT-HOUSE AND STOVE.

In this season a good internal heat must be constantly supported in the hot-house, and sometimes to admit a little air, and to give gentle waterings.

The neat—of the hot-house or pinery, should be always of regular temperature, by a constant bark-bed heat; and fires should be made every evening till nine or ten o'clock, to warm the internal air effectually till morning. [See NOVEMBER.]

If severe frost prevail—guard the hot-house plants by constant fires; and in very rigorous weather and no su

defend the glasses with shutters or mats.

Admission of fresh air—may be allowed in mild, calm *sun-shining days*, by opening some of the glasses in from two, or three inches, or according to the temperature of the weather, being careful to shut close again in proper time.

Watering—may be performed very moderately, only, according as the earth in the pots appears dry; observe as intimated for the green-house plants, to have principally soft water for watering at this season.

The bark-beds—if failed in heat, should now be revived by adding a portion of fresh tanner's bark at top, previously removing some of the most exhausted earthy parts of the old, at top of the bed, filling up with the new tan, and then fork-up the new and old together.

The pine-apple plants—being constantly plunged in the bark-beds, they should be always in a good state, to impart a moderate lively bottom heat about the roots.

The fruiting pines—of this year beginning to advance in fruit, must have a lively heat in the bark-beds.

The succession, and other young pines—must also have a good bark-bed heat continued, observing as above.

Forcing in the hot-house—may now introduce pots of strawberries for early fruiting; also kidney beans and cucumbers, and pots or boxes of small salading; likewise pots of any desirous bulbous roots, of pinks, carnations, roses, and any other small ornamental flowering plants and shrubs to flower early; may likewise introduce some pots of bearing grape-vines for early fruiting.

In grape forcing-houses, may now (b.m.) begin the forcing by fire. heat, &c.

FEBRUARY.

THE KITCHEN GARDEN.

In the kitchen garden, if settled open weather, considerable attention is now required relative to the preparation of all vacant ground, by dunging, digging, and trenching, &c. and of hot dung and other materials for hotbeds, all in proper order ready for sowing and planting the principal early and main crops, this and the two following months, for the general supply of the present year; some to attain early perfection the same spring, and beginning of summer: but the greater part of the main crops for the general service of summer and autumn; and many for the following winter, &c.

Digging and trenching—should now be forwarded in all vacant ground, laying it in ridges to improve by the weather, and to be ready for levelling down for sowing and planting the numerous necessary crops, this and the following spring months.

Dung or manure ground—where most wanted, and for principal crops; such as the main crops of onions, leeks, cauliflowers, cabbages, spinach, lettuce, &c. for new plantations of asparagus and artichokes; and to such compartments, where the ground appears poor or much exhausted.

Sowing and planting—is now to be performed in many principal early and general main crops, mostly in the natural ground, some in hotbeds of tender plants, and others for earliest perfection.

Sowing in the natural ground—may be performed in many principal crops, as radishes, peas, beans, spinach, lettuce, leeks, onions, carrots, parsneps, beets, cabbages, colewort, savoys, borecole, broccoli, cauliflowers, parsley, small sallading, chervil, dill, fennel, sorrel, burnet, clary, marigolds, angelica, corn-sallad, cresses, mustard, rape, &c.

Sow for early natural crops—on south borders, and warmest quarters (b. m.) radishes, spinach, lettuce, peas, beans, carrots, small sallad; or in succession. (m. l.)

Planting natural crops—is now proper in many principal sorts, as cabbages, beans, some early potatoes, horse-radish, Jerusalem artichokes, garlic, shallots, rocambole, mint, balm, tansey, tarragon, sorrel, fennel, burnet, cives; and towards (l.) if settled mild weather, and the plants tolerably strong, cauliflowers and lettuce from frames and hand-glasses.

Make hotbeds—for garden frames, of one, two, or three lights, as may be required, two feet and a half to three feet and a half high in dung, the frames placed on, and in proper time, the bed earthed within the frame with light rich dry mould, six to eight inches thick; in which, when become of a moderate lively heat, sow or plant the several or particular crops intended.

——— ——— *hotbeds for forcing*—may, in some kind of plants, in want of frames, be arched over with hoops or rods, to cover with mats, such as for radishes, carrots, lettuce, kidney-beans, turnips, potatoes, &c.

Horse-dung for hotbeds—where intended, should now be prepared in sufficient quantity, the long and short together, forking it up in a heap, for a week or a fortnight.

Defend hotbeds—by laying straw or long stable litter, round the sides to preserve the heat.

Line hotbeds—also admit air to plants in hotbeds daily, in temperate weather, by propping up the upper ends of the glass, half an inch to an inch or two, according to the heat of the bed, and temperature of the external air.

Sow in hotbeds—cucumbers, melons, radishes, small sallading, lettuce, purslane, kidney-beans, celery, cauliflowers, carrots, a few early turnips, early cabbage, red cabbage, and coriander: and in a hot-house, kidney beans and cucumbers.

To plant in hotbeds—may be performed in transplanting therein young plants of cucumbers and melons; asparagus, early young peas and bean plants, mushroom spawn, strawberries, kidney-beans, potatoes, and mint-roots; and prick young lettuce, cabbage, and cauliflowers. [See the different articles.]

Protect tender young plants—cover the glasses of hotbeds every night with mats, &c. to remain till the morning.

———————————— in beds and borders in the natural ground, every cold night and frosty day, especially lettuces and cauliflowers, in frames and hand-glasses; also small sallading and radishes, [See each of these articles.]

Give air—to plants under glasses in the natural ground, as lettuce, cauliflowers, radishes, small sallading, &c. every mild day, by tilting up one side of the hand-glasses two or three inches, and those in frames raise or draw down one end of the lights proportionally; in moderate dry weather take the glasses off entirely, and any under awnings of mats uncover.

Plant for seed—old cabbages, savoys, carrots, parsneps turnips, red beet, leeks, onions, celery, endive, borecole scorzonera, salsafy, &c.

Aromatic plants—may be sowed and planted towards (1. in mild weather, as thyme savory, marjoram; and may plant rooted plants of sage, mint, balm, pennyroyal, chamomile, hyssop, fennel, tarragon, tansey, &c. [See MARCH.]

Artichokes—if rigorous frost happen, defend with some driest light dungy litter laid round each plant.

Asparagus—Sow asparagus (m. l.) in a bed or beds o rich earth, to raise a supply of young plants for transplanting next year.

Asparagus—plant asparagus (m. l.) for new plantation where required. [See MARCH].

——— to force asparagus, plant a quantity of three or four years old roots in a hotbed, under frames and glasses, to produce a succession for early gathering next month. [See OCTOBER and NOVEMBER.]

——— give air and water to asparagus now advancing in hotbeds; and support the heat by linings.

Balm—may be planted in full plants, or by parting the roots.

Beans—Plant some early kinds, if omitted in November or December, &c. and full crops of all, or any of the large sorts, as long pods, Windsor, Toker, &c. [See JANUARY and MARCH.]

——— hoe earth to early beans, advanced two inches high or more.

——— transplant early bean plants, that were raised thick for that purpose, into some warm border or other compartment. [See OCTOBER, NOVEMBER, &c.]

Kidney beans—required for early crops by forcing, may now be sowed in a hotbed, or some in pots in a hot-house, and for either of which have some beans of the early dwarf kinds; they will produce in March, or in April and May; but in a hot-house or pinery they are raised to greater perfection, with less trouble than in a hotbed; planting four beans in each pot an inch deep, placing the pots upon the top of the flues, &c. and on the bark-bed wall; planting more in two or three weeks after in small pots, to have young plants for transplanting in succession, giving frequent waterings when the plants are come up.

Beets—begin sowing the different sorts, (m. l.) such as red beet, for its root; and white and green, for the leaves.

—— the red beet sow in drills a foot asunder, or dot in the seed that distance an inch deep; or may be sowed broad cast on the surface, and well raked into the ground.

—— the white and green beets sow also either in drills, or broad-cast as above.

—— of the beet kind there is a variety called the *mangel wurzel*, or *root of scarcity*, which is only a degenerated variety of the green and red beet, but the root much longer and larger; it, however, is most estimable to cultivate for its leaves, being excellent to boil like spinach, continuing in summer, &c. and the fleshy stalks of the leaves to dress [illegible] *the manner of* asparagus; it may be easily raised by the same culture as the red and other beet kinds. Though there is a publication treating wholly on the merits and particular culture of this kind of beet, all that is necessary is, to sow the seed in drills one or two feet asunder; and when the plants are come up, to hoe and thin them six or eight inches to a foot distant; or, I believe, they are advised to be sowed in a bed, and afterwards transplanted at the above distances. However, it will certainly thrive equally well to remain where sowed, and the plants thinned as above.

Beets—old red beet roots, remaining in the ground, may be dug up to retard their shooting, and laid in the ground again; they will continue longer good for use.

—— plant, or leave some old plants of beets for seed.

Brocoli and borecole—sow a small first crop (m. l.) for early transplanting. [See MARCH and APRIL.]

Cabbage plants—of strong growth, may now be planted out finally in rows, at one, two, or three feet distance, of the small early and larger kinds.

———— or plant some in close rows for use, as coleworts, or young cabbage hearts.

———— sow cabbage seed (m. l.) of the sugar-loaf, Battersea, and Yorkshire kinds, for successive summer crops; also red cabbage for autumn and winter.

To produce sprouts—reserve or plant cabbage and savoy stalks, and of borecole and purple broccoli.

Carrots—begin sowing (m.l.) in mild weather, the first main crop, allotting them light rich ground.

——— or for early young carrots, sow some in a warm border, frame, or hotbed, (b.)

——— plant some best old carrots for seed.

Cauliflower plants—in frames and hand glasses, give them full air every mild dry day, but defend at night from frost, rain, snow, &c.

————— plant out cauliflowers (l.) if mild open weather, from hand glasses, leaving two strong ones under each glass, and some may also be planted out from the frames: but if an unfavourable season, and the plants not of tolerable strength, leave the whole till next month

————— sow cauliflower seed (b. m.) in a hotbed, or under a frame, or in a warm border, to plant out in April or May. [See JANUARY.]

————— prick early raised seedling cauliflowers in a hotbed to forward their growth, for final transplanting (l.) next month or April.

Celery—earth up the late planted crops of last autumn.

— ——— sow celery seed in a hotbed, and warm border (l.) for the early summer and autumn crops.

Chervill and corn-sallad—where in request, sow in drills or broad-cast, each to remain where sowed.

Coriander—if required early for its young leaves in soups, &c. sow in a warm border, or in a frame or a hotbed, generally in drills, and to remain where sowed.

Cresses, mustard, rape, and radish—for small sallading, sow in hotbeds (b. m.) and in warm borders (m. l.)

Cucumber and melons—sow in hotbeds under frames and glasses, two or three times this month to have plenty of young plants.

— — — — Line formerly made hotbeds of cucumbers and melons in proper time, to support a constant regular moderate heat.

— make large hotbeds for one or more, two or three light frames, for ridging out the cucumber and melon plants raised last month, earthing the bed within the frame, in proper time, laying first a small hill under the middle of each light, eight or ten inches in depth for the plants; the other parts earthed only two or three inches for the present, but raised afterwards by degrees, equal with the hills: then when the hills of earth are warmed by the heat of the bed, and the plants advanced in the rough leaves, one, two, or three inches, or beginning to push runners, and of proper size for this purpose, remove them out of the pots where pricked, with a ball of earth to the roots, and plant one pot of plants in each of the above hills of earth; giving a little water to the roots, and shut down the glasses.

— ——— Prick young seedling plants of cucumbers and melons in small pots placed in the hotbed, ready, when of advanced growth, to remove into others where they are to remain for fruiting.

— — ———— In hotbeds in general of cucumbers and melons, be careful to admit air moderately every day in temperate weather, by raising the upper ends of the lights half an inch to one or two inches, according to the temperature of the external air and internal heat of the beds, from nine, ten, or eleven, to three or four o'clock:

give occasional moderate waterings: cover the glasses of the hotbed every night, and keep up a proper heat by occasional linings of hot dung to the sides of the bed.

———————— Sow orplant cucumbers in pots, &c. in a hot-house, place them towards the top glasses over the black flues.

Dill—sow in drills a foot asunder, (m. l.)

Endive—if any remain good, tie up the leaves for blanching, or transplant some into ridges of dry earth, for the same occasion, defended with a frame, &c.

Fennel—sow either in drills, or on the surface, and rake in the seed.

———— or plant and propagate fennel by the roots, either planting some old main roots, or side offsets thereof.

Garlick, rocambole, and shallots—may be planted by cloves and off-sets of the roots, in beds, six inches asunder and two inches deep.

Horse-radish—may now be planted by top cuttings or the off sets, &c. two inches long. [See JANUARY.]

Jerusalem artichokes—may be planted now by cuttings of the root, in rows of two or three feet distance, and three or four inches deep.

Leeks—may be sowed, the first crop (m. l.) both for transplanting in June and July, &c. and part to remain where sowed.

—— transplant some of the largest and finest old leeks for seed, (m.l.)

Lettuce plants—wintered in frames and hand-glasses, give plenty of air in mild dry days, and protect at night, and when frosty.

———— begin planting out lettuce from frames, &c. (l.) if mild weather, into warm borders.

———— sow lettuce seed of the cos and cabbage kinds, and other different sorts, in a warm border (b. m.) or some also in a hotbed; and a larger sowing (m. l.) in any open situation, to have plenty for thinning, and planting out in successional crops.

———— prick young seedling lettuce, in a gentle hotbed or frame, to forward for final transplanting.

Liquorice—when intended for culture in the kitchen garden for its roots, may now be planted, procuring sets of the side root shoots six inches long, and planted by dibble in rows two feet asunder, inserting the sets wholly into the ground, on which may sow a crop of onions the first year, and the liquorice, when of three year's growth, proper to dig up for use. [See DECEMBER.]

Mint—plant by off-sets or slips of the roots in drills, s or eight inches asunder.

——— for early green mint, plant some roots in hotbed, or in pots in a hot-house.

Mushroom-beds—may be made, if required, to produce spring and summer. [See SEPTEMBER.]

——— cover mushroom-beds constantly wi straw, a foot thick, and mats over the straw covering,

——— collect mushroom-spawn where ar ppears in decayed old hotbeds or dung heaps, &c. f spawning new beds. [See JULY.]

Onions— begin sowing (m. l.) the first main crop c rich ground, if favourable mild dry weather; otherwis sow only a few now in a warm dry situation.

——— young winter onions keep clear from weed nd some may be drawn for use, especially of the Welc onion, if advanced in tolerable growth.

Parsneps—begin sowing the main crop (m. l.) in a open compartment of the lightest deep rich ground.

——— old parsneps remaining in the ground, dig u before they begin to shoot, and lay in sand or dry earth, t continue good for spring supply.

——— plant parsneps for seed.

Parsley—may be sowed (m. l.) for the principal cro either of the common plain-leaved or curled, in a drill fc an edging, or as required.

——— large rooted Hamburgh parsley, for its roo may also be sowed, either thin in drills at six inches distanc or broad-cast and raked in.

Peas—sow in plentiful crops, both hotspurs and marrow fats, and any other sorts required.

——— hoe early peas, and draw earth to the stems mo derately of all that are come up, two, or three or fou inches in growth.

——— to early peas in hotbeds give air daily in favou able weather, and necessary waterings.

——— plant in a hotbed (b. m.) some early young pea of one or two inches growth, also plant some in pots, an place in a hot-house or forcing frame.

Potatoes—plant some early kinds in a warm dry situa tion (m. l.), and a few in hotbeds (b.)

Pot-herbs—may now be sowed (m. l.) such as parsley, chervil, borage, dill, marigolds, fennel, sorrel, burnet, clary beets, and spinach.

———— plant pot and aromatic herbs of the perennial kinds, as mint, tansey, tarragon, sage, savory, thyme, penny royal, balm, hyssop, marjoram, cives, sorrel, burnet, (l.), in full plants, rooted slips, may also part the roots if mild weather.

Radishes—sow (b. m.) in a south border or warm quarter, and (m. l.) in an open situation, for main crops.

———— cover early radishes with straw, on nights and frosts, and uncover every mild morning.

———— sow more radishes in hotbeds (b. m.) for early drawing.

———— likewise sow some Italian turnip radish in a border, &c. and a few in a hotbed, to attain earlier perfection.

———— admit air daily to radishes in hotbeds, give water, thin them where too thick, and keep up a moderate heat in the bed, by lining the sides with hot dung.

Savoys—sow a small portion (m. l.) to plant for early autumn supply; and plant old savoys for seed.

Scorzonera, *salsafy*, *and skirrets*—for their roots, may be sowed (m. l.) either broad-cast and raked in, or in drills six or eight inches asunder; each sort separate.

———————— or plant skirrets by root off-sets, or slips of old roots, which being perennial, admit of propagation by that means.

Small sallading—sow in hotbeds, in frames, or hand-glasses, once a week, or fortnight; also in warm borders (m. l.) consisting of cresses, mustard, rape, radish, &c.

————— give air to young sallading in hotbeds.

Sorrel, *burnet*, *and clary*—may be sowed (m. l.) or the two former planted by parting the roots, or in full plants.

Spinach—sow in a warm situation (b m.) of the round-leaved sort, and sow a larger full crop (m. l.) either broad cast and raked in, or in flat shallow drills, an inch deep, and covered in evenly that depth with the earth.

———— sow, occasionally, spinach and radishes mixed together broad-cast, either in a distinct compartment, or between wide rows of young or new-planted cabbages, cauliflowers, and young beans, &c. the radishes will draw off time enough for the spinach to advance to its *proper growth.*

Spinach—winter spinach clear from weeds and gather the largest leaves for use as wanted.

Strawberry-beds—begin the spring dressing (m.l.) if open settled weather; and new beds may be planted, if the plants are in tolerable growth, otherwise deferred a month longer. [See MARCH, APRIL, JUNE, and SEPTEMBER.]

———— strawberries required early by forcing may be planted in hotbeds, or pots placed in a hot-house, all of which should be two years old plants of a bearing state. [See JANUARY, SEPTEMBER, OCTOBER, and NOVEMBER.]

Tansey and Tarragon—plant in full plants or parting of the roots.

Thyme—may be planted in full plants or slips.

Turnips—sow a small supply of the early Dutch (l.) in a warm border, or some also in a hotbed.

———— plant or leave some best old turnips for seed.

Turnip-tops, now beginning to shoot, are good and tender greens to boil.

FRUIT GARDEN AND ORCHARD.

All planting and pruning—should now be forwarded as much as possible, to have the whole completed, or nearly finished this month.

Borders—where wall and espalier trees are to be planted, dig or trench one or two spades deep, adding improvement of dung, &c. if necessary, as mentioned above. [See JANUARY.]

Ground for planting fruit trees—prepare by digging trenching, and improving where necessary with dung, loam, or other fresh earth or compost, either generally or only where each tree is to stand.

General planting—for wall trees, may now plant peaches, nectarines, apricots, vines, figs, plums, cherries, pears, and some best eating apples.

———— in espaliers, may plant apples, pears, plums, cherries, and medlars; also, for variety, some vines, figs, mulberries apricots currants, &c.

———— and in standards, the principal sorts are apples, pears, cherries, plums: but most of apples and pears, as being the most useful kinds of fruit; likewise in standards, may plant medlars, mulberries, quinces, filberts. hazel-nuts, berberries, services, all of which may be planted both in gardens and orchards: also in orchards and outgrounds may plant walnuts and chesnuts in full standards.

———————— for the above general planting, or for any particular species of fruit-trees, it is of much importance to have good varieties of the respective sorts; as most of the species furnish many or several varieties of their respective fruits, and may be obtained in great choice in the nurseries, of different ages, either of one or two years old, for training in the order required, for walls, espaliers, and full and half standards, dwarf-standards, &c. or they may be had in the nurseries ready trained, of three, four, or five year's growth, or more, furnished with a good expansion of branches, advanced to a bearing age, so as probably to bear a moderate crop of fruit the same or following year.

———————— likewise in wall tree planting, may have half or full standards planted between the common dwarf wall trees, especially in high walls, whereby to cover the upper parts while the others advance below, and thus may have the advantage of planting a greater variety, and by having the whole space of walling from bottom to top sooner covered, will produce a larger supply of fruit in proportion though it should be observed, that as the common wall trees are to be considered as the principal continuing residents, they, after some years advanced growth, will have reached the others above, when the under branches of the latter must be cut away by degrees, to make room for the regular expansion of the former.

General planting for espaliers—may have either young trees of one or two years for your own training; or may have ready trained trees of several years growth, with some considerable spread of branches for immediate bearing the same or next year; and also thereby have the espalier formed almost at once.

General planting—may now be performed in all kinds of fruit-trees, both in wall-trees, espaliers and standards.

Plant all kinds of fruit trees—where intended, do not omit the season, this and next month being a proper time for planting the various sorts, both in wall trees, espaliers, and standards; all of which being profitable in their productions of fruit, ornamental in their general growth.

time should be lost in making plantations thereof more o less, according to the extent of ground, walls, &c. in gardens and orchards, as it must be considered that it will b several years before they arrive at a tolerable bearing stat and in which the fruit will always be highly acceptable.

———— *To plant wall trees*—allot a portion of th best peaches, nectarines, apricots, vines, figs, plums, an cherries, with some choice eating pears, also some be early eating apples, all planted fifteen to eighteen or twent feet distant.

———— *In planting espaliers*—have generally plent of principal apples and pears, with some cherries an plum, &c. and plant at the same distance, as above, in th wall trees.

———— *And to plant standards*—which being for th main production of several principal fruits, generally hav a large supply of the finest apples of different sorts, as th most useful and profitable to plant, both in gardens an orchards, &c. allot also some good pears, cherries, an plums; likewise in standards have a few damsons, medlar quinces, mulberries, filberts and other large nuts, berberries, and services; planted at twenty to thirty or forty fee distance.

————*Half and dwarf standards*—are proper to plant i small gardens; or in any other, for variety, &c. as they wil bear very agreeably.

———— *for the above plantations*—of fruit trees, i may be proper to observe, that they will mostly succeed i any common fertile soil of a garden, orchard, field, &c or where it occurs of a mellow loamy nature, it will prov of greater advantage; but avoid, as much as possible planting in very low wet situations, and strong clayey an very gravelly soils; or, where this is unavoidable, th ground must be improved by removing part of the ba soil, and applying a compost of good earth and rotten dung either generally, or only at present in the places wher each tree is to be planted, and the rest augmented by degrees.

Pruning—should now be diligently forwarded, in wal trees and espaliers, and occasionally for standards, wher required; that the whole may be completed this month, before the trees advance considerably in their blossom buds

———— all wall trees and espaliers, as being limited t *certain space*, require regular pruning, twice every year a summer pruning to regulate the young shoots of that season; and a general winter pruning both among the young and old branches, to cut out the superabundant, irregular, and improper growths, and to reform any disorderly extensions, &c. thereby both to preserve the requisite regularity, and the expansion of branches within their allotted bounds, and in a fruitful state.

——— but standard trees having full scope to branch out freely above, all round to their full extent, they only require occasional pruning, probably only once in several years, to reform casual ill-growing, cross-placed, or crowded branches, and to cut out dead wood.

The pruning of wall-trees—should now be forwarded with the utmost attention, as those trees will now be advancing fast in their blossom buds; observing, as remarked last month, to leave a plentiful supply of the best well-alaced shoots of last summer, cutting out all the others, and useless naked old wood. [See JANUARY].

——————— fig trees, advised to defer pruning till this season, should now, or next month, be wholly pruned and nailed; the young shoots of last summer are the proper bearers for the present year, and being of a somewhat succulent tender nature, liable to be much damaged by severe frost, by leaving the whole unpruned till the spring, there will be a greater chance of choice in obtaining a proper sufficiency to train in for the general bearers the ensuing summer: therefore be careful to leave a plentiful supply thereof in all parts of the tree, of the best well-placed of middling strong growth: and always a terminal or leading shoot to each mother branch, either naturally placed, or in some cases, particular branches pruned down to a proper shoot, as circumstances require; and cut away the superfluous, or what are not wanted, with all ill-placed and improper shoots, long extended naked old branches, and dead wood, continuing the retained supply of young shoots always at their whole length, in these trees, and nail them in regular to the wall.

Prune standards—that need it, cut away any very irregular or cross-placed branches, thin very crowded branches and cut out decayed wood.

Espalier tree pruning—forward now as much as possible; such as apples, pears, plums, cherries, &c. and tie and nail the branches regularly to the trellis.

Young wall and espalier trees—under training, give necessary pruning; and train in proper supplies of young wood to furnish the head with a proper expansion of branches. [See JANUAY.]

Nail wall trees—according as each tree is pruned; likewise observe the same in espaliers.

Defend blossoms of principal wall trees—such as apricots, peaches, nectarines, by nailing up mats in cutting frosty weather, but always take them off when the weather is tolerably mild; or stick cuttings of evergreens spreading between the branches, to remain constantly till the fruit is set, as the cuttings, being furnished with leaves, will afford some protection, by breaking off, in some degree, the keen edge of cutting frosty winds; or also, for the same effect, may suspend old fishing nets, double or treble fold occasionally, till the fruit is all well set in advancing growth.

Apricots—may be planted in standards, especially the Breda and Brussels apricots.

Mulberries and almonds—are proper to plant now in full and half standards.

Filberts—plant in detached half standards, ten feet in the row, and fifteen or twenty feet between; or some also planted hedge fashion, or to form a shady walk, in a single or double range, and permitted to run up in full growth above: and in both methods will grow very desirably in gardens or orchards, &c. and bear plentiful annual productions ripening in August and September.

Walnut trees—may now be planted in orchards, parks, or out-grounds, or where convenient: and in any extensive grounds some larger plantations would in process of time prove very profitable in their annual production of nuts, planted at twenty to thirty or forty feet distance.

Stake tall standards—newly planted to secure them from being displaced by the wind.

Sow kernels—of apples and pears, to raise stocks for grafting, nuts of walnuts, chesnuts, and hazels.

Plant cuttings and suckers—of gooseberries, currants, codlins, figs, vines, mulberries, filberts, &c.

Make layers—of figs, vines, filberts, and mulberries.

Plant suckers of plums, pears, codlins, &c.—for stocks, for grafting and budding, and make layers of muscle plums, to raise stocks, on which to bud some principal sorts of peaches, nectarines, apricots, &c.

Provide grafts—(m. l.) ready for grafting the latter end of this, and in the next month.

Grafting—may be commenced (m. l.) upon apples and pears, plums and cherries.

Stocks for grafting and budding—plant out in nursery lines, to attain a proper size for that operation.

Currants and gooseberries—finish pruning, and where intended to plant any, this is a proper season to make a full plantation; have trees with full heads; they will bear the same year. [See JANUARY.]

Raspberries—may now be planted, and will bear the same year; and finish pruning old plantations. [See JANUARY.]

Forcing fruit trees—for early bearing, if not proceeded in last month, may now be commenced (b) in forcing stoves, &c.

———— *In fruit forcing houses, &c.*—To obtain early fruit of different principal sorts, as grapes, peaches, apricots, nectarines, cherries, plums, &c. now (b.) forward that business by fire heat continued every evening and morning, &c. or by tan bark or dung, hotbeds, or by both or either of these, assisted also by fire heat, as above: or where tan bark and hot dung are used together on this occasion, have the dung generally below, and the tan above, laid a foot at least thick. [See JANUARY.]

FLOWER GARDEN AND PLEASURE GROUND.

Forward now all the necessary preparations for planting, where intended, the various sorts of flower roots, plants, shrubs, and trees; as also for sowing the different sorts of annual flowers, both in the open ground and in hotbeds; and likewise to dig and clean the different compartments of beds, borders, shrubberies, walks, &c. in the best order, now in the commencement of the spring season.

Dig and prepare—the compartments of beds, borders, shrubberies, &c. both for planting, where intended, flowers and shrubs, and sowing many sorts of flower seeds, that the whole may appear in the most regular order.

Edgings to beds and borders—may now be planted; plant the box close, to form at once a regular edging. [See BOX EDGINGS, OCTOBER.] The thrift may also be planted in the same manner, or not more than two or three inches apart, that the plants may soon meet.

———— *or for edgings*—may occasionally plant daisies, pinks, London pride, strawberries, polyanthuses, &c.

Edgings—Repair old edgings that are deficient.

Sowing--may be performed in hardy annuals, perennials, and all sorts of tree and shrub seeds, (m. l.)

Hardy annuals—begin sowing (m. l.) in beds, borders, and pots. [See List.]

——— Or sow some in pots, to place in a hot-house or hotbed, for early flowering. [See List.]

Tender annuals—Sow in hotbeds, (m. l.) [See List.]

Sowing hardy perennials and biennials—may be performed toward (l.) in a border or beds of light mellow earth, if fine settled open weather.

Planting—may now be performed in open weather, in most sorts of herbaceous plants, shrubs, and trees.

——— *Perennials and biennials*—of most sorts may now be done where required, in beds, borders, and pots, for flowering this year. [See List.]

Propagate herbaceous perennials—by parting their roots, or by detaching rooted slips, off-sets and slips, planting some of the strongest sets at once into the flower borders, to flower the same year; and the smaller plant in nursery-beds, till next autumn.

To curious or tender plants in pots—give still occasional protection, if severe frost prevail, either continued under frames, or arched beds, and covered with mats. [See JANUARY.]

——— But in open mild weather, let them always enjoy the full air.

Dress and fresh earth plants in pots—(m. l.) in mild weather; clear off decayed leaves, weeds, and litter; loosen and take out some of the top earth, and an inch or two deep round the sides, then fill up the pots with fresh mould, which will encourage the plants in their spring growth.

——— or any of the above wanting larger pots may be shifted (towards l. or sooner) with the ball of earth about the roots, and some fresh earth previously applied to the larger pots, and fill up with more round the ball, and about an inch over the top, giving a moderate watering.

Auriculas.—Plant auriculas and carnations where required, (m. l.) in pots, beds, borders, in open weather, all to remain for flowering the same year.

———*Carnations*—may now plant finally (m. l.) where they are required to remain, in beds, borders, &c. for flowering the ensuing summer, both of last year's seedlings and layers; also plant a portion in pots, particularly some best plants of layers, allotting pots of proper sizes, sixteens or twenty-fours, one or two good layers in each; and those in small pots transplant into larger, to remain for flowering: likewise plant some best layers in the principal flower borders.

Auriculas and carnations in pots—of the more curious sorts continue still in a sheltered situation, or in frames, or in a bed under hooped arches, and give the protection of glasses or matts occasionally, if severe frost or snow occur, to preserve them strong and in good condition, to blow in full perfection; but in all open weather, let them be always fully exposed to the free air, to continue them in good strength.

———— Spring-dress auriculas and carnations in pots (m. l.); pick off decayed leaves; loosen the top earth in the pots, and a little down round the sides, taking out the loosened earth, then fill up the pots with fresh, which will greatly encourage the plants in their flowering, giving directly a light watering.

Anemones and ranunculuses—plant in open dry weather to flower this spring, and in April and May, and generally finish planting the principal supply (m. l. or sooner) either in a bed or beds of light earth, each sort separate, in rows six inches asunder, and two inches deep; or plant some in the principal borders in small patches, three or four or five roots together, in which they will make an agreeable variety, in assemblage with other spring flowers.

———————————— some may be planted in pots, for moving occasionally to any particular compartment required.

Annual flower seeds—of the hardy kinds, begin sowing the principal supply (m. l.) in borders, beds, and pots, &c. and tender sorts in hotbeds, (l.)

Suckers—plant off from roses, and various other sorts of flowering shrubs.

Bulbous roots—of all sorts, finish planting as soon as the weather permits, [see List,] in beds and borders, or some in pots, all for flowering the same year, in spring and summer.

———— Plant bulbous roots in pots (b. m.) to flower in the apartments of a house, or placed in a hotbed or hot-house for earliest flowering; give them moderate watering.

Bulbous roots—Bulbs may also be placed in water glasses (b.m.) for flowering in a room,&c. and change the water about once a fortnight, or when foul or fetid.

——— *Plant off-sets*—of all sorts of bulbous roots remaining out of the ground, or that have been lately detached; and may now detach outward off-sets from fibrous rooted perennials, and plant them.

Bulbous roots, defend beds of curious bulbs—from frost, especially those now advancing above ground, having the beds of the more choice and curious sorts arched over and covered with mats, to protect the young flower buds.

Plantations—of ornamental and forest trees where intended, should now be forwarded in settled open weather, both in any decorative compartments, as groves, walks, clumps, thickets, or occasionally for shade, shelter, or blind: and also to form, woods, coppices, hedges, &c. as may be required.

For planting of trees and shrubs—those of moderate young growth are preferable to old, for successful removal, especially of the tree kinds; about five or six to eight or ten feet is an eligible size; and as to shrubs, they are various, from one foot or less, to four, five, or six feet.

——— *Or occasionally*—large trees, of the deciduous kinds, of from ten to fifteen feet or more, may be removed for particular purposes; or where a speedy shade, blind, or shelter, &c. is wanted.

——— *For expeditious growth*—the Lombardy poplar is superior to most other trees, to plant for a speedy shade, shelter, blind, and in assemblage or alone, near great road-sides, to break off the dust in summer from the interior parts of the garden, and front of a dwelling-house, though it is now greatly too prevalent and abundant in many such places, often to the exclusion of an eligible variety of other trees, more beautiful, and superiorly ornamental and valuable in growth.

Dig Shrubberies—and rake the surface over.

Sow tree and shrub seeds... (m. l.) in open mild weather See List.]

Flowering shrubs—may now be planted in open weather, of all sorts, for shrubberies and other ornamental plantations, or pots.

Evergreen shrubs—may also be planted, if open settled mild weather.

Propagate shrubs and trees, &c.—by cuttings, layers, and suckers. [See the NURSERY.]

Prune shrubberies—where necessary, cutting out or shortening long rampant shoots, low stragglers, and dead wood; and dig up, or clear away bottom suckers.

New work—now carrying on or intended, should be well forwarded at this season.

Lately planted tall trees—and shrubs should be supported timely with stakes, especially those in exposed situations.

To force for early flowering—place pots of pinks, roses, hypericums, and other small plants and shrubs, in a hothouse, &c. also pots of bulbous roots.

Ten-weeks-stocks and mignonette—sow in a hotbed, or in pots, &c. sheltered from the cold, to come in forward for early flowering.

Fresh earth—the tops of pots, containing flowering plants, shrubs, &c.

Shift into larger pots—(m. l.). any plants and shrubs that require it, removing them with the balls of earth entire, and add some fresh mould.

Begin to Spring-dress—and clean all the principal parts of the flower garden and pleasure-ground.

Grass-lawns, walks, &c.—pole and roll in dry open weather; the poling is performed on fine lawns, with a long taper pliant ashen pole, to break and scatter the worm-cast earth, which defaces the surface of the grass: and then if rolled, it will clear up the scattered earth, and render the surface clean, firm, and even.

Lay grass turf—where required for any intended new grass work; and likewise to mend any deficiencies in old, beating it well down with a heavy wooden beater, close and even, then rolled.

——— Or in want of a sufficiency of turf, may sow grass seed (m. l.) on a smooth firm surface.

Gravel walks—weed, sweep, and roll, in dry open weather.

Hedges—where wanted, may now be planted of any sorts required for fences, shade, shelter, of deciduous and evergreen kinds.

——— *For deciduous hedges*—the principal sorts are white or hawthorn, privet, hornbeam, beech, elm; also sometimes elder, willow, poplar; the first five principally by young *plants*, and the three latter either by plants or cuttings: but the hawthorn is superiorly effectual for an outward fence, though it does not grow up so speedily as several of the others, and the privet forms an expeditious close neat garden hedge.

Hedges, Evergreen hedges—may also be planted (m. l.) if open mild weather, and of which holly and yew are the principal sorts; or occasionally laurel, bay, tree-box, alaternus, &c.

——— *Clip or trim*—the deciduous kinds, omitted last autumn, but not evergreen at this season.

——— *Plash and lay down all deciduous hedges*—that are run up rough above, and naked below.

WORK IN THE NURSERY.

Now, as this month may be properly considered as the commencement of the spring season, various works of nursery, in planting and transplanting, will be necessary in many sorts of young trees and shrubs, in open settled weather, as well as in taking up or drawing many sorts for garden and other plantations; also in the work of propagation, by sowing many kinds of tree and shrub seeds, &c. planting suckers, cuttings, layers, and ingrafting; likewise in forwarding the digging or trenching vacant ground, and digging between the nursery rows of young trees and shrubs; some occasional work of pruning, with several other requisite works of nursery culture, explained under their respective heads.

Digging and trenching—all vacant spaces of nursery-ground designed for spring planting, and between nursery rows of young trees, should be forwarded this and the following months, at all proper opportunities, to be ready in good condition for the reception of such nursery plantations of young trees, as may be intended; as also for seeds, suckers, and cuttings, for raising many sorts of trees and shrubs.

Prepare beds of light mellow ground—three or four feet wide, for sowing various sorts of tree and shrub seeds, and for pricking out many sorts of small seedling and other plants, both of trees, shrubs, and herbaceous perennials.

Planting or transplanting—will be necessary now on several occasions in many sorts of young trees and shrubs in the nursery, such as planting out young seedling plants thereof, one or two years old, from seedbeds, into nursery rows; and in some others, having been formerly planted in that order, and being of much advanced growth, will require transplanting in rows at wider distances, one to two or three feet, as may seem necessary, according to the growth of the different sorts.

Plant out seedling trees and shrubs—in open weather (m. l.), especially of hardy deciduous kinds, from seed-beds into nursery rows, one to two or three feet asunder, according to the size and nature of growth of the different sorts.

Plant out fruit-tree stocks—of seedling plants of one or two years growth, into the large quarters of the nursery, in rows, two or three feet asunder, to remain for grafting and budding when advanced to proper sizes.

Transplanting—will be occasionally necessary in young nursery trees and shrubs, formerly planted out at small distances; and having increased considerably in growth, requiring a larger scope of room, they should accordingly be transplanted at eligible distances, conformable to their different growths.

Planting or transplanting evergreens—may now be occasionally performed in some of the more hardy kinds, in open mild weather; but for any general removal or transplanting these kind of trees and shrubs, it would be advisable to defer it to the two following months.

Plant cuttings—of gooseberries, currants, honeysuckles, and of many other shrubs and trees.

Plant suckers—of roses, lilacs, limes, codlins, currants, gooseberries, rarpberries, and of many other tree and shrub kinds.

Make layers—of the various sorts of trees and shrubs that are raised by this method of propagation, as directed in the preceding page.

Transplant rooted layers—which were layed last spring, &c. or the autumn before, in nursery rows.

Grafts or scions for grafting—begin to collect (m. l.) of the middling strong shoots of last summer, before they advance much in bud for shooting, especially of those inclinable to get forward, making choice of the young shoots of the respective trees intended: tie them in little bundles; and those not immediately wanted, place with the bottom ends into some light earth to preserve them in proper condition ready for grafting.

Begin grafting—towards (l.) if mild open weather upon apples, pears, plums, cherries, and other trees.

Mulch the ground—between new planted young trees and shrubs of some principal sorts, and of any curious or tender exotics, to preserve the roots from frost at this season, and drought in spring, &c.

Give occasional protection—to tender or curious plants in pots and beds, if severe weather, as observed in JANUARY and DECEMBER.

——*But in mild settled weather*—let all plants that have had a temporary shelter from severe frost, be now fully exposed.

Drawing, or taking up trees or shrubs—of proper growth, for garden and other plantations, may now in open weather be performed in all the hardy kinds as shall be occasionally required both of the deciduous and evergreen shrubs.

Prune—where necessary, such as trimming up the stems of trees and shrubs from any rampant or rude shoots, as also to regulate casual disorderly growths above.

Head down budded stocks—of fruit trees and others that were budded last summer, cutting them off slanting, near to or only three or four inches above the inserted bud, which will soon after begin to shoot.

The works of propagation—may now be performed in open weather by different methods, such as by seed, suckers, layers, cuttings, or grafting.

——— *by seed*—many sorts of trees and shrubs are raised, and may now be sowed of all the hardy kinds, deciduous, and evergreens, in open mild weather, in beds of light mellow earth, three or four feet wide, the seeds may be sowed broad cast on the surface, earthed over one or two inches deep, and the larger sorts in drills the same depth, or other large kinds may be planted by dibble, &c.

——— *by suckers from the roots*—many trees and shrubs are also raised, such as roses, lilacs, lime-trees, and numerous others; and may now be taken up with roots, to each, and planted in the nursery, in rows one to two feet asunder, to acquire proper growth for final transplanting.

——— *by layers*—of the young shoots many sorts of trees and shrubs are propagated, and this is a proper time to perform it; effected by bending down the young branches or shoots, as they remain on the parent plant, giving a small cut or slip upward on the underside, laying that part along *bendingly into the* earth, three or four inches deep, pegged down with some hooked sticks, and earthed over, leaving the tops upright several inches above ground: they will be well rooted for planting off next autumn.

———— *by cuttings of young shoots*—many sorts of trees and shrubs are increased, and may now be planted for propagating the respective sorts, choosing the young shoots of last year, cutting them six or eight to ten or twelve inches long, and planted in nursery-beds or rows six inches to a foot asunder, inserting them half way into the ground, they will be well rooted, and produce shoots above the following summer.

———— Or cuttings of any of the more tender or curious sorts, may be planted in pots, and plunged in a hotbed or bark-bed, to forward their rooting more successfully.

THE GREEN HOUSE.

The general care of the green-house plants, now, is to supply them with plenty of free air every mild day, gentle waterings, and to defend them still from cold, by shutting all close every night, and in frosty and other inclement weather.

Admit air—in mild open weather daily, by opening some of the glasses about eight, nine, or ten in the morning, and shut close towards the evening.

Watering—will be required moderately once or twice a week to the oranges, lemons, myrtles, and others of that nature; but give it very sparingly to the succulent plants; and water only in mild open weather in a forenoon.

Loosen the earth—in the tops of the pots, especially where it appears bound, or hard crusted on the surface.

Give fresh earth—to the tops of the pots, where it appears necessary; first loosen the old earth, take some out, and fill up with fresh mould.

Shift into larger pots—and add some fresh earth (m. l.) where it appears necessary. [See MARCH.]

Decayed leaves—will at this time occur frequently, and should be detached as soon as they appear.

Dead wood—decayed or mouldy shoots, &c. should be cut out wherever they occur, and prune any run-up weakly *dwindling growths.*

Succulent plants—if any have decayed leaves or shoots, cut them off close.

Foulness—contracted on the leaves of oranges, lemons, &c. should be washed off clean, as also occasionally in the plants in general, when very dusty, by watering over the heads in a fine mild sunny forenoon.

In severe frosty and very foggy weather—make moderate fires occasionally in the flues, if any, otherwise in some utensil placed within the green-house, to keep out the frosts and dry up the damps.

THE HOT-HOUSE.

Continue always a regular heat in the hot-house, by a constant bark bed, especially the pinery stove, and fires every night, and cold days.

A high state of heat—is requisite for all the hot-houre exotics, and in pineries, as the full grown fruiting pines will be now advancing in young fruit, should have both a good bottom heat supported in the bark bed, and regular moderate fire heat every night, and every cold morning, &c. to forward their fruiting freely in proper season; continuing the pine plants in general always plunged in the bark bed.

The bark bed heat—should be continued always in a lively state, by forking up occasionally once in six or eight weeks, and adding a proportion of fresh tanner's bark when the heat is much decreased, observing previous, to take up all the pots, and if any of the top bark is much decayed, or become earthy, remove it, and fork up the bed to the bottom; or if some new tan is thought necessary, apply about one-third or fourth part at top of the bed, which will soon revive the heat of the whole: or may fork up the new and part of the old together about half way downward, and directly replunge the pots in regular order..

Fires—make every evening at ten o'clock, sufficient to support a good heat all night; and continue also in cold mornings, or all day in rigorous weather.

In mild calm days—and a good sun, admit air moderately; but shut close if cold or cloudy, and always soon in the afternoon

Water—moderately when the earth in the pots becomes [illegible] a week or fortnight, or as it may appear necessary

If very severe frosts—it would be good precaution to cover the glasses of the hot-house, of nights particularly, with shutters of large thick mats, and continue constant moderate fires.

Succession of pines—for the next and succeeding years of fruiting; if in a separate stove, &c. keep up a proper heat by bark beds and moderate fires, as directed above, only be careful not to force them by over fire heat to run them into untimely small fruit.

—— Or if any young pines are contained in dung hotbeds, under frames and glasses, continue the beds in a proper heat by occasional strong linings of hot dung to the sides, and admit a moderate portion of air in sunny mild days.

To force in the hot-house—introduce pots of strawberries, kidney-beans, cucumbers, peas, &c. also pots of pinks, roses, sweet and scarlet peas, and other desirable flowering plants of moderate growth; or pots of bearing vines, if none are trained within; though most hot-houses and pineries have vines trained extendedly within, under the inclined or sloping glass, which produce abundantly in very great perfection at a most early season, April, May, June, &c.

Forcing-houses for early fruit, &c.—should now proceed fully in forcing by fire heat in the flues every evening and morning, &c. or by continued bark beds, or with both, or occasionally by fire only; or is sometimes effected wholly by bark or dung hotbeds: also sometimes by dung and tanbark heat together, having the dung below and the tan at top, as formerly intimated: and by either of which, fruit trees of the desirable sorts having been previously planted within, and arrived at a proper growth for bearing, such as vines, peaches, nectarines, apricots, cherries, plums, figs, or occasionally may introduce pots of dwarf-trees of the above sorts, advanced to a bearing state; or likewise pots of flowering plants, strawberries, kidney-beans, sallading, the same degree of moderate heat will suit the whole, and forward their growth to early perfection very agreeably.

—— *though in vineries*—designed principally for forcing grape-vines to the most early production, they will generally bear a higher degree of forcing heat by fires than most other fruit trees that are usually forced; and on which *consideration* most hot-houses, especially *pine-apple stoves, have vines trained* within under the glasses.

MARCH.

THE KITCHEN GARDEN.

In this month particular attention is required to prep for, and to sow and plant, many principal crops for t service of the present year, both in the natural ground f the general supply, and in hotbeds for several plants; a to forward some others of more hardy growth, when d sired in early perfection. [See SOWING IN HOTBEDS.

The preparation of ground—by dunging, digging, a trenching, is now particularly required to be finished, wit out loss of time so as not to omit the proper season for so ing and planting particular crops.

General sowing and planting—should now be forward in many principal crops, some for early, and others f main supplies in summer, autumn, and following winter.

Ground digged up in ridges—should now be levell down according as wanted, for sowing and planting, as will now work in excellent order for these occasions.

Hoeing—perform in dry weather, between advanci young crops in rows; as peas, beans, cabbages, loosen t earth, cut down any weeds beginning to advance, a draw a little earth to the stems of the plants.

Weeds—now advancing among winter-standing plant should be diligently extirpated by hand and hoe befo they spread considerably.

For all sowing and planting—be careful to have fre seed, principally of last year's saving, that you may not disappointed in your principal crops when too late to so again, and to have them in perfection at the proper seaso expected.

Sowing—is now necessary in the full ground for man principal crops, of potherbs, cabbage plants, &c. &c. [Se List.]

Planting—is also requisite in many principal articles f natural or full ground crops, of eatable plants, &c. [Se List.]

Hot dung—provide and prepare for making hot-bed and lining others when declined in heat, by applying h dung to the sides. [See JANUARY and FEBRUARY.]

Hotbeds—are now required for several tender plant *and others for early* crops: as cucumbers, melons, capsi cum, love-apples, basil, &c. also for forcing asparagus, kidney-beans, strawberries, &c.

Hotbeds—to sow in hotbeds—cucumbers, melons, small sallads, purslane, cauliflowers, celery, love-apples, capsicum, kidney-beans, coriander, and basil.

——— *To plant in hotbeds*—cucumbers, melons, asparagus, kidney-beans, strawberries, and mushrooms.

——— *And to prick in hotbeds*—young cucumber and melon plants, to attain a proper growth for final transplanting into other hotbeds for fruiting; also early celery, and early spring-sowed cauliflowers and lettuce, to forward them for planting into the full ground.

Alexanders—sow, and hoe and earth up to blanch those raised last autumn.

Artichokes—give the spring dressing (m. l.), digging and levelling the ground between the plants; and slip or take off the superabundant suckers to three of the strongest on each stock or stocks.

——— *Plant artichokes*—by young suckers slipped off as above, in rows four feet and a half asunder, by three feet in the rows: they will produce heads in autumn.

Asparagus—sow now in a full crop in any compartment of rich earth for planting out next spring.

——— *Plant asparagus*—young plants raised last year, or not more than two years old; allotting them a compartment of the best mellow ground, well dunged several inches thick, and trenched in a spade deep; and in which plant them in beds four feet and a half wide, four rows lengthways each bed, in drills or small narrow trenches five or six inches deep, cut out with a spade, forming, thereby, one side of each drill upright; so inserting the plants against the upright side, a foot asunder, with the crown of the roots about two inches below the surface, covering in each drill as planted equally with the earth; and then rake the surface of the beds lightly over: they will produce buds or shoots of proper size for gathering in three years, not sooner; but the same plants continuing many years in perfection, produce from the roots successive crops annually, from April (l.) or May (b.) till middle or latter end of June or beginning of July; then should be permitted to shoot up in stalk, till the end of autumn, that the roots may not be too much weakened by repeated production, and every autumn, in October, the stalks *to be* cut down and the beds cleared and landed up [See OCTOBER and NOVEMBER]; so that a new plantation of asparagus is required only once in several or many years, according as the strength of the roots appear by their produce to be more or less exhausted. [See APRIL.]

Asparagus on new planted beds as above—may sow a thin crop of onions the first year, where it is necessary to make every possible advantage of the kitchen ground, the plants of both crops will advance in proper growth without detrimenting each other.

——— *Plant asparagus*—in beds as above, for forcing, after having three years growth in the said transplanted natural beds; the plants being then of proper growth for planting in hotbeds in order for forcing, as below. [See also NOVEMBER.]

——— *Asparagus to force*—plant a proper quantity of three years old plants, as above, in hotbeds, to produce the final forced crop for the present season, in succession to those of last month. [See NOVEMBER.]

Balm—plant either in full plants, or by parting the roots, or slipping the young spring shoots.

Beans—plant full crops now of the principal large kinds, two or three times this month, to have a good succession; also any of the smaller sorts; hoe and draw earth to beans that are come up and advanced in growth, two, three, or several inches high.

Kidney beans—sow, if warm dry weather, in a south border (l.) a small crop.

——— *Sow also early kinds*—in a hotbed, or in pots in a hot-house.

Beet—sow the main crop, of red, for its roots, if not done last month. [See FEBRUARY.]

—— *Sow also white and green beets*—for their leaves.

—— *Likewise sow mangel murzel beet*—both for its root and for its leaves; but principally the latter, being excellent to boil like spinach, and the stalks of the leaves also as asparagus. [See FEBRUARY.]

Borecole—of the green and red curly sorts, sow the first principal crops (m.) to plant early in summer, to produce tall stems and large top heads for autumn and winter; being very hardy, it stands severe frost, when other greens are often killed by rigorous weather; and the tall stems produce abundance of sprouts from bottom to top, all excellent to boil.

Broccoli—sow a moderate supply of the early purple for heading in autumn.

——— The spring broccoli of last year's sowing and planting, is now in great perfection for general use in the production of large heads in the manner of cauliflowers.

——— Mark, and leave for seed, some best old broccoli plants, now in full heads, to discover their goodness for that occasion.

Cabbages—plant out full crops of the strongest winter-standing plants, both of the early and late kinds, for summer and autumn, &c.

——— Likewise plant red cabbages for autumn and winter.

——— In those planted last autumn or winter, make good any deficiencies, or if any run to seed, pull them up and plant others.

———Sow the sugar-loaf, early York, and other forward sorts, to come in for young cabbages the same year, in summer and autumn, &c. and sow also some of the large late kinds for autumn and winter; likewise some red cabbage for the same seasons.

Sea-beach cabbage, or sea-colewort—estimable for its young spring shoots, may now be planted in year old plants; or seed sowed in one or more four-feet wide beds of light loose earth, in drills, either to remain or transplant in rows, at one or two feet distance: and in autumn or winter, clearing off the old leaves, &c. the beds then earthed with light soil, or dry light mellow dung, three inches thick, or more; and in the spring, the young shoots rising from the roots, through a substance of earth, are large, white, and tender, most excellently good to boil in the manner of asparagus, &c. or also occasionally at this time, by whelming garden pots over the advancing shoots at their first protrusion through the soil, or a month or two sooner, closely stopping the holes in the pots, which will draw them up in quick growth, and increase the length of the white or blanched part more crisp and tender for use in improved perfection.

Savoys—sow in an open situation (m. l.) for planting out in plentiful crops in summer, to produce large cabbaged heads for autumn and winter.

Capsicum, love-apples, and basil—sow in a hotbed, (m. l.) to plant out in May or (b.) June.

Cardoons—sow a small crop (m. l.) for transplanting in May or June.

Carrots—should now be sowed in full crops, some to draw young in summer, and a larger portion to attain full size for autumn and winter.

Cauliflower plants—wintered in frames, &c. should now be planted into a compartment of rich ground, two feet and a half asunder.

——— Those under hand-glasses should be thinned to two of the strongest under each glass; and those drawn out plant in the open ground; continue the glasses over the others, and prop them up two or three inches to admit air.

——— *Prick young spring raised cauliflower plants*—in a hotbed or warm border, three or four inches asunder, to attain proper strength for final transplanting next month, &c.

——— *Sow cauliflower seed* (b. m.)—for a late summer crop.

Celery—sow in a warm border, or some in a hotbed (b.) and prick out early young seedling plants of last month, in a hotbed or warm border, to forward for final transplanting.

—— *Sow celeriac*—or turnip rooted celery.

—— *Earth-up old celery*—late planted last autumn, for spring supply.

Cives, sorrel, and burnet—may now be planted by full plants or parting the roots, or seed of the two latter sowed.

Corn-salled, chervill, and dill—may now be sowed.

Cucumbers and melons—sow in hotbeds, either as successional or first crops, for ridging out into other hotbeds when two or three weeks old, to remain for fruiting. [See *Cucumbers, &c. below.*]

——— *Prick young cucumber and melon plants*—in small pots when but a few days old, in the seed leaves, three or four in each pot of cucumbers, and two of melons, and plunge them in the hotbed; or prick others in the earth of the bed; all to attain a proper growth for planting out finally into other hotbeds, when advanced in the rough leaves two or three inches.

———*Ridge out cucumbers*—raised last month, or the beginning of this, into large hotbeds, to remain for fruiting. [See FEBRUARY.]

——— *Or plant some melons*—also in a tanner's bark *hotbed, made in a pit*, defended with frames and glasses being superior for its long continuance in a good moderate heat.

Cucumbers impregnate, or set the young fruit of cucumbers—according as they come into blossom, by applying the central anther of the male to the stigma in the centre of the female flower.

This business of setting the fruit in cucumbers is a curious and most necessary operation in early plants, and in which observe the following particulars:—cucumbers and melons, producing fertile and barren blossoms distinct on the same plants; the fertile ones only produce the fruit, always appearing under the base of the blossom, and the barren, often denominated false blossom, having the anthera situated in the centre of the flower, is furnished with a fine yellow farina or dust, designed by nature for fretilizing the fruit; but which in early plants in frames, not having the full air, &c. require the assistance of art; therefore, according as the fertile blossoms fully expand, observe in the same day, or second morning at farthest, to pluck a fresh full expanded barren flower, pull away the petal or flower leaf, then, holding it by the stalk, applying the remaining anthera in the centre, to the stigma or central part of the fertile blossom, twirling it about between the finger and thumb, to discharge some of the fecundating powder on the stigma; and thus the fructification is effected, which will be obvious in two or three days, by the young fruit beginning to swell, observing generally, if possible, to have a fresh blossom for each impregnation.

——— *For hand glass crops*—sow cucumbers and melons, (m. l.) to plant under glasses in APRIL and MAY.

——— *Hotbeds of cucumbers and melons*—give air in mild days; cover the glasses every night, and keep up a good heat by lining the sides occasionally in proper time, with hot dung, laid at least a foot wide.

——— *Stop or prune young cucumbers and melon plants at the first joint*—by taking off the top of the first advancing runner-bud, to strengthen the plants, and make them put forth fruitful runners.

Fennel—sow seed, or plant some roots or off-sets.

Garlic, shallots, and rocambole—finish planting.

Gourds and pompions—sow in a hotbed (l.) to plant out in May.

Horse-radish—finish planting the main crop [See FEBRUARY.]

Leeks—sow a good crop now, both for transplanting in summer, and some to remain where sowed.

Lettuces—that have stood all winter in frames, plant out (m. l.) a foot asunder; and any remaining thick in open beds or borders, thin out the superabundant regularly, and plant at the same distance.

——— *Sow different sorts of lettuce*—for variety.

——— *Prick out young early sown lettuce*—in a frame, warm border, or in a hotbed, to forward them for final transplanting next month.

Liquorice—may be planted (b. m.) if omitted last month, &c.

Sweet marjoram—sow in a hotbed or bed of rich earth, for transplanting.

Mint—plant either by slips of the roots, or young spring plants.

——— *Clear old mint beds*—from weeds.

Mushroom beds—if required, may now be made, to furnish a spring and summer crop; keep them constantly covered with dry straw a foot thick. [See SEPTEMBER.]

Nasturtium major—sow in a drill near a hedge, wall, &c. on which train the plants, as climbers; their flowers for sallads and garnish, and the fruit to pickle: the young leaves, also, being of warm relish, eat agreeably in a sallad.

Onions—sow the main crops in the richest ground, in beds three or four to five or six feet wide, and rake the seed in regularly; or large crops may be sowed in one continued plat of ground, though the sowing in beds is generrally the most convenient in the necessary culture of the crop; some sowed thick to draw young in summer, and a larger supply to remain for full bulbing keeping onions.

——— *Young winter onions*—raised last autumn, keep clear from weeds; and may be thinned out in young growths for use as wanted. [See APRIL.]

——— Plant old onions for seed (b.) if not done.

Tree onion—a bulbous perennial, may now be planted for its production of small top bulbs; it rises with a tall stem producing many small bulbs at top, which are good to eat, of an agreeable flavour, either raw or in sauces, or excellent to pickle; plant them in rows a foot asunder, six inches in the row, and two inches deep; they will produce bulbs the same year.

Parsley—sow now the principal supply, if not done last month, generally in drills.

Hamburgh parsley, salsafy, scorzonera, and skirrets—where in request for their roots, sow now the first main crops in open situations, either broad-cast on the surface, and raked in, or in shallow drills, six or eight, or ten or twelve inches asunder, each sort separate

Peas—sow principal crops once a fortnight or three weeks, both of the hotspurs for succession, and larger supplies of marrowfats, or any other sorts required.

———— *Hoe earth to peas*—that are up two or three inches or more.

———— *Stick early peas*—when six or eight inches high.

———— *Early peas in hotbeds*—give air and water.

Parsneps—sow a plentiful crop in good ground.

———— *Sow pot herbs*—of all sorts, as parsley, chervil, borage, beets, marigolds, sorrel, fennel, burnet, coriander, dill, clary, angelica thyme, marjoram, savory, hyssop, &c. all in beds or borders of common light earth.

———— *Plant pot and aromatic herbs*—of the perennial kinds, as thyme, pot and winter marjoram, savory, sage hyssop, mint, balm, pennyroyal, fennel, tarragon, tansey sorrel, burnet, cives, chamomile, angelica, rue, lavender &c. All either in rooted full plants, or most of them also by slips, off-sets, and parting the roots.

———— *Propagate pot herbs and aromatics*—by slips offsets, and parting the roots; as thyme, sage, marjoram, mint, balm, and most of the other perennial sorts just above mentioned.

———— *Spring dress the old beds of pot herbs*—hoe, rake, and clear off old weeds, and loosen the ground about the plants. [See *Herbary* above.]

Potatoes—begin planting the principal crops, either by cuttings of large ones, or good midlings, all in rows two feet and a half asunder, at twelve or fifteen inches distance in the row, and three or four inches deep.

—— *Early potatoes in hotbeds*—give air and occasional watering.

Jerusalem artichokes—plant either by cuttings of the large roots, or small ones whole, three by two feet asunder, and three or four inches deep.

Purslane and coriander—sow in a hotbed and some in a warm border *(m. l.)* both of which to remain where sowed

Radishes—sow full crops of the common red and salmon kind, two or three times this month in an open situation.

—— Likewise sow some white and red turnep radishes, but most of the white sort.

—— *Water early radishes*—in dry warm weather in hotbeds and borders.

Rampion—for its root, sow in a bed or border, either broad cast, or in drills, to remain where sowed.

Rue, rosemary, and lavender—may now be planted in slips or rooted plants.

Sage—may be planted by rooted full plants, or by rooted off-sets, slips, suckers, &c.

Small sallading—of cresses, mustard, rape, and radish, sow every week or fortnight in a warm situation: or, if cold weather, sow also in a hotbed, or under glasses.

Spinach—sow full crops of the round leaved sort once a fortnight or three weeks.

—— *Winter spinach*—clear from weeds, which will now be in perfection to gather for use, either the large leaves or the plants thinned out where thick.

Strawberries—plant by young off-sets, or runner plants of last year, at twelve to fifteen or eighteen inches distance.

——— Spring dress all strawberry beds, hoe, dig, or loosen the surface, and clear away weeds and runner strings of last year from the plants, and spread some loose earth between them from the alleys, &c.

——— Place pots of two years old scarlet strawberry plants in a hot-house, or hotbed, for a succession of early fruit.

Tarragon and tansey—plant by parting the roots, or in full plants.

Thyme, savory, marjoram, and hyssop—may now be sowed (m. l.) or plant some of each in full plants, or by slips, or parting the roots.

Turnips—sow some early Dutch (b. m.) to draw in May; and as these will soon run to seed, sow a larger portion (m. l.)

FRUIT GARDEN AND ORCHARD.

All planting and pruning should now be finished.

Planting—may be performed in all sorts of fruit trees, *any time this month*, but is advisable to complete all that is intended as soon as possible, before the trees advance much in their spring buds.

Ground for planting—finish the necessary preparation required; such as manuring, digging, and trenching borders for wall trees and espaliers, &c.

Orchard fruit trees—in standards, finish planting where intended, and complete all requisite pruning thereof in formerly planted, or old trees.

Plant suckers—of fruit trees, both for young plants in several sorts: as figs, codlins, quinces, filberts, hazel-nuts, &c. and also in several kinds, for stocks, on which to graft and bud.

For stocks—plant suckers of plums, pears, quinces, codlins, and filberts.

Plant out young seedling stocks—raised last year, into nursery rows, for budding and grafting, &c.

Head or cut down budded stocks—of young fruit trees, that were budded last summer, heading them off near the insertion of the bud, which will then advance in a strong growth.

Espalier trees—may also be planted; as apples, pears, plums, cherries, &c. as directed in the two foregoing months.

Wall tree planting—may be performed in any sorts required, as peaches, nectarines, apricots, figs, vines, plums, cherries, pears, &c. but is of particular advantage to have the whole completed as soon as possible this month. [See JANUARY and FEBRUARY.]

Protect wall trees in blossom—from frost, of the principal sorts of apricots, peaches, and nectarines, nailing up large mats in frosty nights and days, and taking them off in mild weather.

——— Or have cuttings of evergreens furnished with leaves stuck between the branches, or large old fishing nets suspended double before the trees; and either of these may remain constantly till the fruit is well set, and past all danger from frost. [See FEBRUARY.]

Head down young wall trees—of peaches, nectarines apricots, and others of a year old, planted any time since last autumn, with the first shoot from budding, &c. entire, cutting each down to five or six eyes or buds, to obtain several lateral shoots, below, to give the head its first proper formation.

——— *Other young fruit trees*—advancing with only a single naked shoot or two, should also be headed down a above, in order to force out lateral shoots near the stems, t form a first regular set of branches from the beginning.

Train young wall and espalier trees—now, in the first o second year's shoots, after heading down; prune out foreright and cross placed productions, and nail the others in a regular expansion.

Pruning—in wall trees and espaliers, should now be completed in the beginning of the month, if possible, particularly in all sorts of peaches, nectarines, and apricots, as they will be considerably advanced in their blossom buds; likewise forward all remaining pruning in vines, figs, plums, cherries, pears, apples, and all other sorts in the wall and espalier tree order.

——— In the above pruning, observe the order of bearing, of the different sorts of trees, as hinted in January, &c. and prune them accordingly.

——— According as each tree is pruned, nail and train it to the wall or espalier, in the most regular order, arranging the branches horizontally, three to four or five inches asunder.

Finish pruning of vines—and let the whole be now completed as soon as possible; for when late pruned in the spring, they are apt to discharge the sap exceedingly at the cut parts. [See JANUARY and NOVEMBER.]

—— *Make layers of vines*—in the full ground; or any particular sorts may be layed in pots, either by bending the layer down into the pot, or drawing it through the hole at the bottom, and fill up the pots with earth; but preferably the former.

—— *In wall vines, &c.*—where any are vacant of proper wood below, or required to extend the expansion, lay down into the earth some of the side branches, or others occasionally as may be required.

Prune fig trees—against walls, &c. where not yet done, generally completing the whole this month; and in which observe the same directions as in February.

——— *Finish planting fig trees*—where it is intended, against south walls, eighteen or twenty feet asunder.

——— Plant suckers, and make layers of fig trees, for a supply of young plants, if required.

Standard fruit trees—of all sorts may yet be planted in full collection, or as may be required, of the different kinds mentioned in the two last months.

Pruning standards—where any require it, should now be wholly finished.

Stake new-planted standards—of tall growth to secure them from being displaced by the wind.

Dig between rows—of gooseberries, currants, and raspberries.

Gooseberries, currants, and raspberries—finish planting (b. m.) or as soon as possible, as they will now be advancing fast in their spring shoots and blossom buds. [See JANUARY and FEBRUARY.]

——— Likewise finish all remaing pruning of gooseberries, currants, and raspberries (b. m,)

——— Plant suckers and cuttings of gooseberries and currants, for young plants ; also suckers of raspberries.

Propagate fruit trees—by different methods ; some by grafting, as apples, pears, plums, cherries, medlars, &c. and also by planting young cuttings of vines, figs, mulberries, codlins, quinces, elderberries, gooseberries, and currants; some by suckers, as currants, gooseberries, raspberries, codlins, filberts, hazel-nuts, quinces, berberries; and others by layers, as vines, figs, mulberries ; or also occasionally codlins and other apples, plums, &c.

——— *And by nuts, &c.*—walnuts, chesnuts, filberts, hazel-nuts, and almonds.

Cut grafts—(b.) of young shoots of apples, pears, plums, cherries, filberts, &c. for grafting this spring.

Grafting—may now be performed in general in apples, pears, plums, cherries, medlars, quinces, filberts, sweet services, &c. finishing it mostly this month.

Suckers eradicate—from the roots of all kinds of fruit trees.

Mulch fruit trees—lately planted, covering their roots to keep out the drought.

Sow for stocks—kernels of apples, pears, quinces, medlars, for grafting and budding.

Nail wall trees, and tie and nail espaliers—according as each tree is pruned.

Dig fruit tree borders—of wall trees and espaliers, when the trees are finished pruning and nailing.

Hot walls and forcing houses—for early fruit, continue making fires every evening and morning, &c. to support a regular internal heat.

In the above, may introduce pots of strawberries, kidney-beans. flowers, &c. to forward in early perfection.

FLOWER GARDEN AND PLEASURE GROUND.

Compartments designed for planting with any kind o flower roots or plants, shrubs, and trees, should now b forwarded, that all principal planting may be complete this and the beginning of next month.

Planting—may now be performed in numerous sorts o flowering plants, and all kinds of shrubs and trees.

Sowing--is also now proper in many sorts of annual perennial, and biennial flowers, and many sorts of trees an shrubs.

Also propagating—many sorts of perennials, by partin roots, off-sets, slips, &c. and shrubs and trees by layers cuttings, suckers, and grafting.

Clean and spring-dress—the flower-garden and pleasur ground, by digging, hoeing, and raking the borders, beds and shrubberies; weed, sweep, and roll the gravel walks and mow the grass compartments in walks and lawns: cu the edges of grass even, and regulate all sorts of edgings o box, thrift, &c. in the best order, and plant new edging where wanted.

Furnish the beds, borders, &c.—with all necessary flowe plants, seeds, shrubs, and trees, now at the proper season before too late, as most sorts may now be removed and planted and seeds sowed.

Edgings—may be planted of box and thrift; or occasionally of daisies, pinks, London-pride, strawberries, &c. &c.

———Repair, trim, and regulate old edgings where disorderly.

Hoe and rake—borders, beds, and shrubbery compartments, forming a clean and even surface.

Perennial and biennial flowers—of all the fibrous and fleshy rooted tribes, may now be planted in beds, borders, pots, &c. where required; and seed sowed of all sorts raised by that method; numerous sorts to be propagated by slips, off-sets, parting roots, &c. and those raised last year, plant out into the borders for flowering this season

Planting perennials and biennials—may be performed in all sorts for flowering the same year; such as pinks, polyanthuses, auriculas, daisies, carnations, campanulas, wallflowers, sweet-williams, stocks, columbines, rose campions, and numerous other sorts, in borders, beds, shrubberies, *pots, &c.*

Perennials and biennials sow—for flowering next year as pinks, carnations, wall-flowers, sweet williams, rose-campions, stock-gilliflowers, polyanthuses, auriculas, and many others, all in beds of common earth, for pricking out in summer.

—— *Propagate perennials*—by parting or slipping the roots, which may now be performed in numerous sorts.

Plants in pots—of different sorts of perennials, clear from weeds, decayed leaves, litter, &c. and fresh-earth the tops of the pots.

Shift plants in small pots—into larger, and add some fresh earth to such as require it.

Plant into pots—any curiousor desirable flowering plants and shrubs.

Place in a hot-house—pots of desirable flowers, and small flowering shrubs to blow early.

Auriculas and carnations in pots—clear from decayed leaves, and add some fresh earth to the top of the pots, if not done last month.

—— *Best auriculas in pots*—defend from frost when the flower buds advance.

—— *Slip and plant off-sets of auriculas*—and sow seed; and may plant some full plants in borders and pots to flower the same year.

Carnations—plant in pots and borders.

—— *The carnations in small pots*—transplant into larger with ball of earth to the roots.

———— *Sow carnation seed*—(m. 1.)

Anemones and ranunculuses—finish planting all that remain out of the ground; they will flower in May and June.

——— Protect the choicest anemones and ranunculuses.

Polyanthuses—plant in beds, borders, and pots, and sow seed.

——— *Slip polyanthuses for increase*—or divide the roots, and plant the off-sets.

Annual flower seeds—may now be sowed of all sorts both of hardy kinds in the open ground, and tender sorts in hot-beds; all for flowering the same year in summer and autumn.

——— *Hardy annuals*—may now sow all sorts in beds and borders to remain, and some principal sorts in pots; all of which generally sow in small patches, several or many seeds in each, according to the sorts and nature of growth of the respective plants, and which in most *sorts* are generally to remain where sowed for flowering; or *som*. occasionally transplanted of the larger growing kinds in May or June. [See the *List of Annuals.*]

Annuals—sow tender annuals in a hotbed for transplanting in April, May, and June, in pots, borders, &c. as balsams, cock's-combs, tricolors, globe amaranthus, tree amaranthus, egg plant, double stramonium, marvel of Peru, &c. African and French marigolds, chrysanthemums, China-asters, ten-weeks stocks, mignionette, &c. [See the *List of Annuals.*]

Ten-weeks-stocks and mignionette—sow in a hotbed or warm border; or in a frame, hand glasses, or pots, defended from the cold, to forward in growth for transplanting,

——————— Prick early raised plants in pots, three or four in each.

Bulbous roots—of all sorts remaining out of the ground finish planting (b.), some of which will flower the same year; others, by this late planting, will flower but weakly, or not at all; it however will save the roots.

—— *No removal of bulbs*—now all advancing in growth should be practised at this season, which in most sorts would prevent their flowering; but if any are unavoidably removed, replant them again directly.

———— Of the more curious capital sorts in beds, now advancing in their flower buds, cover them with mats, in frost, hail, or snow; such as the superior sorts of hyacinths, tulips, polyanthus, narcissus, &c.

Tuberoses—beautiful tall flowering bulbo-tuberous roots, and the flower fragrant; the roots, imported annually from Italy, may now be planted in pots, in a hotbed or hot-house.

—— *any preserved in pots*—protected in winter, may if proper sized roots, be forwarded similarly.

Finish digging shrubberies—or hoe and rake the ground neat, clean and even.

Ornamental and forest trees—finish planting for groves, clumps, walks, woods, coppices, and for shelter and shady plantations.

Trees and shrubs—of all hardy sorts, both deciduous and evergreen may be planted; it is a proper season to sow seed, and propagate numerous sorts by layers, cuttings, slips, and suckers.

Suckers and cuttings—plant of shrubs and trees, and make layers.

Plant slips or cuttings—of young shoots of many sorts of under-shrubby plants.

Large cuttings, poles, and truncheons—may now plant of willow, Lombardy poplar, alder, and elder, &c. in low moist grounds, marshy places, or any other out situations, or where thought eligible; and along the sides of brooks, rivers, and banks. and watery ditches, &c. either to grow up for standards, pollards, or for underwood: or some to form hedges, or as may be required.

—— *Or elder cuttings*—of strong shoots, cut in lengths of one to two or three feet or more, may be planted along the sides, or tops of banks, ditches, &c. either to form a speedy hedge, or some to run up rough in natural growth and in standards, for their production of berries for elder wine.

Climbers—plant to ascend upon walls, poles, trees, arbours, &c. both of shrubbery and herbaceous kinds.

Roses—plant of different sorts; likewise take off and plant suckers thereof, and lay moss roses.

Deciduous tree and shrub seeds—finish sowing.

Sow forest seed trees—as acorns, mast, berries, nuts, stones of fruit, and cone seeds.

Prune shrubberies—cutting out rude shoots, dead wood, and eradicate suckers from the roots.

Stake new planted—tall standard trees.

Mulch the ground—over the roots of new planted trees and shrubs of the more curious or tender evergreens and others, to keep out the drought, &c.

Graft—curious varieties of trees and shrubs to continue the sorts; and graft English elms.

Sweet briars—sow seed in a drill, and plant young plants in shrubberies, borders, &c.

Evergreens—shrubs and trees of all the hardy sorts, may now be safely planted; as laurels, laurustinus, bay, alaternus, phillyrea, magnolia, rhododendron, arbutus, arbor-vitæ, pines, firs, cedars, cypress, holly, &c.

——— *Curious and tender evergreens*—may be transplanted or removed with balls of earth, not to feel much check by removal; or any small young curious or tender sorts may now be planted in pots, to place in any particular compartments required.

——— *Pruning evergreens*—where wanted, may now be performed, if mild weather, to reduce any irregular growth not now clipped close with garden shears.

Evergreens—sow seeds of evergreens, of most sorts that are raised by that means; as pines, firs, cedars, cypress, holly, bay, yew, arbutus, &c. in beds of light earth; but the arbutus should generally have a gentle hotbed.

—— *Tender evergreens*—against walls, or under any kinds of occasional shelter; as broad-leaved myrtle, olives, tea trees, magnolias, &c. give full air every mild day, but still cover with mats, &c. if cold frosty nights.

Gravel walks—weed, sweep, and roll every week.

—— *Turn gravel walks*—and new lay them (m. l.) to remain clean, neat, and of a fresh appearance, all spring and summer.

—— *Make new gravel walks*—where intended, this being the proper season.

Grass lawns, walks, &c.—pole, roll, and mow once a week or fortnight. [See FEBRUARY.]

—— *Lay grass turf*—for making new or repairing old work; or, in want of turf, sow grass seed.

—— *Edges of grass*—cut close and even.

Walks—keep always clean from weeds and litter.

Hedges—finish planting where intended, both of deciduous and evergreen kinds. [See FEBRUARY.]

———— For hedges many sorts of tree and shrub plants are occasionally used; but for outward fences the white or hawthorn, and holly, are superior, as the most effectual; or for general boundary hedges, the former is preferable to all: or sometimes to form expeditious hedge-fences, the elder and Lombardy poplar are used; and for garden hedges, several sorts are occasionally employed as privet, horn-beam, beach, quick, or hawthorn, &c. and evergreens, the holly, yew, laurel, &c. [*See the list of hedge plants in the catalogue of trees.*]

———— In planting outward hedges, it should generally be performed on the top or upper part of a raised bank, formed by a ditch on the outside, and the hedge plants or sets planted in a double row a foot asunder, by six or eight inches in each row; but for internal hedges in gardens, they should be planted on level ground, either in a double or single row, as may be thought expedient.

———— But for field hedges in grounds where cattle graze, &c. sometimes a bank is formed by a double ditch, i. e. a ditch on each side to keep off the cattle both ways, especially for division hedges; and is also very proper in *boundary hedges*; as in both cases, the hedge being planted in a double row along the top, the double ditch and bank defends it more securely against the depredations of cattle; and the whole together forms a more effectual fence.

—— *Trim or clip hedges*—where needful.

——— Plash or lay down any overgrown rough hedges, naked or open below.

WORK IN THE NURSERY.

In this month a considerable increase of principal nursery business comes under observation, some consisting in forwarding whatever was omitted in the two former months, others in performing some particular works now more successfully than at any other season; and to finish, if possible, all necessary digging, and the principal work of planting and transplanting in general, according as required; as also to forward the business of propagating, both by seeds, layers, cuttings, suckers, grafting, &c. and to complete all principal work of pruning, and in performing several other works, mentioned under their proper heads.

Planting and transplanting—where necessary, may now be performed in any sorts of hardy trees and shrubs, both deciduous and evergreen kinds; such as planting out seedlings from seed beds, and transplanting from other compartments where needful, agreeable to the cultivation of last month; all of which should at this season be forwarded with great diligence, and either wholly or nearly completed this month.

—— But in the deciduous tribes particularly, it is advisable to complete all the necessary principal planting, intended to be done this spring, as soon in this month as possible, before they advance in their spring shoots in any considerable degree; and they will now soon strike fresh root and grow.

—— In evergreens, however, they in most sorts may be planted or transplanted any time this month and beginning and middle of the next, more successfully than earlier in the spring, when cold weather prevails: or if this month should prove frosty or very cold in the beginning, it would be better to delay the principal planting of these kinds till the middle or towards the latter end.

Complete all principal digging—of vacant nursery ground intended for planting this season with new plantations of young trees and shrubs, or for sowing seeds thereof, or planting cuttings, suckers, &c. to raise supplies of young plants.

Finish or forward all requisite pruning—in any sorts o. trees and shrubs, by cutting out or reducing casual irregular shoots and branches, or to trim up the stems of forest trees and others from strong lateral shoots.

Dig between nursery rows of young trees, &c.—and should now complete or forward all work of that kind as soon as possible.

Forward now all planting and transplanting—which should be principally completed this month, especially in most of the deciduous trees and shrubs.

Plant out seedling trees and shrubs—of all kinds, from the seed-beds into nursery-beds; or some larger kinds, quarter out in nursery rows, at a foot and a half to two or three feet distance.

Plant out fruit-tree stocks—both of seedling plants and others, into the nursery quarters, in rows two to three feet asunder, to remain for grafting and budding, after having one to two or three years growth or more, according to the smaller and larger sizes, for different occasions.

Plant cuttings and slips—of young shoots, to propagate various sorts of trees and shrubs, both of the deciduous and evergreen kinds.

Plant suckers, and bottom off-sets—of various sorts of trees, shrubs, and plants, taking them up with roots, and plant them in nursery rows.

Transplant rooted layers—of last year's laying, into nursery rows, to acquire proper growth.

Transplant young trees and shrubs—where required; such as have been formerly planted in nursery beds, &c. in close rows, being advanced in growth, require more room, and should now be transplanted accordingly, completing it principally this month.

Sow tree and shrub trees—of most sorts, both evergreens and deciduous kinds, in beds, or borders, &c. of light earth, inserting or covering them in one to two inches deep, according to the smaller or larger seeds.

——— Or some of the more curious and tender evergreens, may be sowed in pots or boxes, &c.

——— Likewise any of the more curious or tender sorts being sowed in pots, may be plunged in a bark-bed, or other hot-bed, to bring them more forward.

Mulch new planted trees, &c.—of some particular or principal kinds, spreading it on the ground over the roots, to preserve them from the drought of the spring and summer.

Evergreen trees and shrubs—of all the hardy sorts, or of most kinds, both of young seedling plants and others, may now be planted or transplanted as occasion requires.

The propagation of trees and shrubs—by the different methods, may at this season be performed almost in general, especially by seed, suckers, cuttings, layers, slips, off-sets, grafting, &c.

Propagate evergreens—many sorts by seeds, as pine-trees, firs, cedars,cypress, &c. and many others by layers, cuttings suckers, &c.

———— *by layers*—many sorts of trees and shrubs, both of the evergreen and deciduous tribes; and observe as directed in February.

———— *tender exotics*—now by sowing seeds, planting cuttings, layers, &c, in pots, and plunged in a bark-bed or other hotbed under glasses.

Tender evergreens and other exotics—having had occasional protection in winter, &c. should now enjoy the full air in mild temperate weather.

Prick out small seedling trees and shrubs—into nursery-beds, in rows six inches to a foot asunder.

Collect grafts—from the respective trees, before they begin to shoot, to have them in proper order, ready for grafting. [See FEBRUARY.]

Grafting may now be performed in general—both in all the sorts of fruit trees, usually propagated by that method. as apples, pears, plums, cherries, &c. and in such other trees as are either occasionally or generally increased by grafting, and should be mostly completed this month.

———— *Inarching or grafting by approach*—may also be performed now.

Head down budded stocks—of fruit trees and others, which were budded last summer; the bud being always inserted into the side of the stock, the top of which remaining entire, must now be cut down sloping, near the insertion of the bud, which having remained dormant, will soon after this push forth in a strong shoot, to form the new tree of the desired sort.

Head down young fruit trees—having their first shoots, from grafting and budding, of one year's growth, cutting them to five or six eyes or buds, that they may push later shoots below, to give the trees their first formation for th wall and espalier, &c.

Planting in pots—may now be performed in any curiou sorts of trees, shrubs, and plants, as may be required; an where any of former planting require shifting into larg pots or fresh earth, this is a proper time for that work.

——— Of former planted trees, shrubs, &c. in pot not requiring to be shifted, should have the top earth loosened, and a little fresh compost added.

Herbaceous perennials—of numerous sorts, may now b planted and propagated in the nursery; and of whic most sorts may be propagated by off-sets, and parting th roots; many also by sowing seeds.

THE GREEN HOUSE.

Continue all the plants still in the green house—and a this season allow them a large admission of free air daily i mild weather with frequent waterings.

During their continuance in the green house—keep al the plants in good order; clean from any foulness they ar apt to contract, clearing off all decayed leaves and dea shoots: and occasionally stir, or fresh earth the tops of th pots; or any may be shifted into larger pots where required

Fresh air—admit freely every mild day, but shut clos at night, and when cold.

Give water—now frequently to most of the green-hous plants, according as the earth in the pots appears dry.

Stir the earth on the top of the pots—where any appear of a binding nature.

Fresh earthing—the top of the pots, if not lately done will now prove beneficial.

Clean the heads and leaves—of any plants that are foul o mildewed, washing with a sponge, &c. any very foul arge-leaved sorts, and watering all over the heads of others.

Decayed leaves and shoots—always clear off when they appear.

Prune the heads—of any plants that are very irregular; as myrtles, geraniums, oranges, lemons, &c. cutting out o shortening any disorderly or weak straggling growths.

Heading down—may be occasionally performed to any green house plants of a very naked, shabby or straggling growth: pruning down the branches more or less to have them break forth in fresh shoots, and thereby form more compact regular heads.

Shift into larger pots, &c.—any plants that require it, removing them with the ball of earth; cut away matted or mouldy dry outside roots; plant them in the new pots, previously adding some fresh earth at bottom; then inserting the plant, fill up with more earth round the sides and over the top of the ball; and water slightly.

Oranges, lemons, myrtles, &c.—in pots or tubs too small, may now be shifted as above into larger.

——— In the work of shifting into larger pots, it should be observed, that as some green house plants grow to a large size, such as oranges, lemons, citrons, &c. also the American aloes; and that after having been shifted into the largest sized pots, and having increased to a large growth therein, they should be shifted from the pots into tubs of proper size; and any that are now in tubs too small, may be shifted into larger.

——— The tubs for the above purpose should be made strong, and hooped with iron, having two hooked iron handles at opposite sides near the top, and holes bored in the bottom, to discharge the redundant moisture after watering, &c.

Plant cuttings and slips—of the young shoots of myrtle, geraniums, heaths, and other shrubby kinds, in pots; and may be forwarded in a hotbed, &c.

Suckers and off-sets—where they occur in any of the green house exotics, detach, and plant in pots.

Sow seeds—of green house exotics, as geraniums, balm of Gilead, winter cherry, &c. in pots or otherwise; also sow kernels of oranges, to raise stocks for budding: they may all be forwarded in a hotbed or in the bark-bed of a hot-house.

Make layers—for propagation of the lower young pliant branches or shoots of any shrubby kinds.

Planting—may be performed in any green house plants, where a number have been raised together in a pot or pots, and the young plants still remaining therein, transplant them singly into small pots.

HOT-HOUSE AND STOVE

The hot-house plants—still require the constant aid of a lively bark-bed heat, assisted by fires in the evenings and in cold mornings; continuing the pines always in the bark-beds, supported in a good heat.

The plants in general—should have fresh air admitted moderately in warm days, but keep close when cold, cloudy, and every night; and will now require frequent moderate waterings, once or twice a week, or as often as the pots become dry, and some want shifting into larger pots.

Pine plants—will now be advancing fast in young fruit, and require to have a good lively bottom heat in the bark-bed in which they are plunged, to forward the fruit in a free regular growth; and if the heat is much declined, revive it by forking up the tan-bark, adding some fresh tan.

The succession pines—also require a moderate lively heat in the bark-bed; or, as they will require shifting (l. or next month) the heat must then be renewed.

Shifting into larger pots—may be occasionally performed as required; or the young succession pines will require it in general next month: but the fruiting pines advancing in fruit do not require shifting, nor should they be removed when in that state of growth, except where any appear in a defective state. [See HOT-HOUSE for APRIL.]

Clean the leaves—of any plants that are foul, or invaded by insects.

Propagate hot-house plants—by different methods; as sowing seed, planting suckers, off-sets, slips, cuttings, layers, &c. all in pots, and forward in a bark-bed: either that of the general stove or hot-house, or its appendages, as bark-pits, &c. under glasses.

APRIL.

THE KITCHEN GARDEN.

Now all principal sowing and planting omitted last month in the main crops, should be finished early in this; also at this time the sowing, planting, transplanting, &c. many successional plants that are but of short duration in perfection, will be required.

Finish preparation of ground—by dunging, digging, and *trenching, ready for* sowing and planting.

Sowing—may still be successfuly performed in most of the principal crops (b. m.) both in the open ground and in hotbeds, which, however, should now be forwarded as much as possible.

——— In the open ground sow onions, leeks, carrots, parsneps, radishes, red beet, peas, beans, kidney-beans, cabbage, cauliflowers, broccoli, borecole, savoys, red cabbage, sea-cabbage, celery, cardoons, lettuce, asparagus, turnips, spinach, white beet, green beet, turnip cabbage, turnip-radish, salsafy, scorzonera, skirrets, Alexanders, finochio, rampions, nasturtiums, and small salading. Finish the main crops.

Planting—is now proper in many principal crops, as asparagus, artichokes, cabbages, cauliflowers, coleworts, sea-cabbage, beans, kidney-beans, potatoes, horse-radish, lettuce, Jerusalem artichokes, and strawberries; with several kinds of aromatics, pot and sweet herbs, both in full plants, slips, off-sets, cuttings, &c. as sage, mint, balm, tansey, tarragon, thyme, savory, marjoram, hyssop, sorrel, burnet, fennel, pennyroyal, chamomile, cives, rhubarb, lavender, rue, &c.

Hoe—between plants in rows, to cut down advancing weeds: as also to loosen the surface of the ground, and to draw earth to the stems of the plants, as early cabbages, cauliflowers, peas, beans, &c. it being greatly beneficial, in forwarding their growth.

Handweeding—will be necessary in beds of small plants which always perform in proper time, before the weeds advance considerably.

To produce seed—leave some spinach, parsley, beets, celery, endive, small salading, Welch onions, chervil, leeks, broccoli, borecole, turnips, parsneps, carrots, and other plants of the season.

Prick out seedling plants—from seed-beds, of cabbages, cauliflowers, broccoli, borecole, savoys, celery, and lettuce, into beds of rich earth; and in hotbeds, prick young cucumbers, melons, capsicum, basil, gourds, love-apples. &c.

Hotbeds—should be made for cucumbers and melons, both for frames and hand-glasses, also for capsicums, love-apples, basil, early kidney-beans, and strawberries: and when their heat declines, line with hot dung, for which horse dung should be kept.

Sow in hotbeds—cucumbers, melons, kidney-beans, capsicum, tomatoes, or love-apples, and basil.

Plant in hotbeds—cucumbers, melons, asparagus (b.) strawberries, and mushrooms; and to prick therein some young seedling cucumbers, melons, capsicums, love-apples, basil, &c.

Aromatic herbs—finish sowing and planting, as thyme, savory, marjoram, angelica, sage, tarragon, tansey, fennel, dill, mint, balm, pennyroyal, &c. and propagate them by parting the roots, slips, &c.

Artichokes—finish the spring dressing, as in March.

——— Complete planting where intended (b. m.) in rows at four feet and a half distance, by a yard in the rows, as directed last month.

Asparagus—finish sowing in an open situation, for new plantations next year, where necessary, or intended.

——— Planting in beds, complete, (b. m.); young plants of a year old are proper; have rich ground well dunged, laid out in four feet and a half wide beds, with alleys two feet wide between; and for planting, form with a line and spade four narrow trenches or drills, in each bed lengthways, a foot asunder, and six inches deep; but form only one drill at a time, making the line side upright and directly plant each drill according as it is formed, placing the plants therein against the upright side, about nine to twelve inches apart, with their crowns all equally a little below the surface, and earth them in evenly two or three inches deep, and thus proceed in planting each row; and when finished planting, rake the surface lightly even; or, as intimated last month, may previously to raking, sow a thin crop of onions on the beds this first season. [See MARCH.]

—— Plant also some for forcing, in beds, as above, or in continued rows at nine to twelve inches distance; and in two or three years they will be of proper growth to take up for forcing in hotbeds in winter, &c. [See SEPTEMBER, OCTOBER, and NOVEMBER.]

—— Fork and spring dress the productive beds—(b. m.) turning up and loosening the earth a moderate depth, and rake the surface even.

—— Plant some asparagus in hotbeds (b.) the last crop. See *the preceding month.*]

Beans—plant full crops of Windsor, Toker, long pods, white blossoms, &c. once a fortnight or three weeks, in rows, two feet and a half, or a yard asunder

Beans— hoe beans that are up, and draw earth to the stems.

——— Top early beans in blossom, to make the pods set sooner and more abundant.

Kidney-beans—sow early dwarf sorts on a warm border (b. m.) and sow larger supplies (m. l.) either in borders, or any dry warm situation, in drills two feet and a half asunder.

———— Sow some early sorts thick in a large pot or two, in a hotbed, &c. (b.) for transplanting in the latter end of this month, or the beginning of next in a warm border; and, two or three successional crops, giving them air and water.

—— —— Sow, a small first crop of the scarlet runners, or other kinds required.

Beet—finish sowing the main crop of red (b. m.) that the roots may attain their peculiar large growth for autumn, winter, and following spring; and of green and white for their leaves, may also be sowed, if not done in February March; also may sow the mangle murzel beet, if before omitted. [See FEBRUARY.]

Broccoli and borecole—sow a tolerable crop in an open situation, to plant out in summer for autumn and winter. [See MARCH.]

—— Prick out young seedlings of broccoli and borecole, to acquire strength for final transplanting

Cabbages—finish planting out all the winter standing plants for principal crops in summer and autumn.

—— Prick out young seedling cabbages.

—— Sow Yorkshire, Battersea, sugar-loaf, cabbages, &c. to plant for summer, and autumn young cabbages and coleworts; sow also large cabbages for autumn and winter, it not done last month.

——— Tie up the leaves of early cabbages to forward their heading.

Sea beach cabbage—may yet be sowed and planted (b. m.) where required, if not done last month. [See MARCH.]

Savoys—sow a principal crop of the green curly sort, &c. in an open situation (b. m.) to plant out in June, July, &c. for autumn and winter supply.

—— Prick out young seedling savoys of the early sowing, in beds, three or four inches asunder, to acquire strength for final transplanting next month.

Turnip-cabbage—may be sowed, either to remain and be and keep both the new and old beds, constantly covered with dry straw a foot thick. [See SEPTEMBER.]

Mustard—may be sowed (b.) to produce supplies of seed, with which to make flour of mustard for table sauce; sowed either in drills a foot asunder, or broadcast, and raked in regularly.

Nasturtiums—if not sowed finish now. [See MARCH.]

Onions—finish sowing the main crops (b.) or sow some (m. l.) to draw young in summer, and for small bulbs to pickle.

—— *Young winter onions* will now be in perfection to draw for use; thin and leave some of the bulbous kinds for early bulbing in June.

Tree onions—may still be planted, if not done. [See MARCH.]

Parsley—sow, if not done the two last months.

Hamburgh large rooted parsley—may still be sowed, if omitted before.

Parsneps—sow the main crop (b.) if not done in February or March.

Peas—sow plentiful crops once a fortnight or three weeks at this season, for successional supplies, both of marrowfats and principal hotspur kinds, or any sort that may be required; but the two former for the main supplies.

—— Hoe and draw earth to peas advanced several inches in growth.

—— When six or eight inches high, where intended, put a range of sticks to each row.

—— Water in dry weather, early peas in warm borders.

Potatoes—finish planting the main crops (b. m.) in rows eighteen inches or two feet asunder, by twelve or fifteen inches distance in each row, and three or four inches deep.

—— *Give air daily, to early potatoes in beds*—and occasional waterings.

Jerusalem artichokes—finish planting (b.) [See the two last months.]

Pot herbs—sow and plant of any sorts required; and propagate by slips, parting roots, &c.

—— *Raise by seed pot and sweet herbs*—of different sorts; as thyme, sweet marjoram, pot marjoram, savory, hyssop, fennel, dill, chervil, marigolds, burnet, sorrel clary, coriander, and purslane, if not done last month.

Raise by plants, slips, parting roots,—the several sorts oi pot herbs and aromatics; as thyme, sage, savory, pot and winter marjoram, hyssop, tansey, tarragon, mint, balm, pennyroyal, chamomile, sorrel, burnet, cives, fennel, lavender, rue, &c.

Purslane—sow more on a warm border.

Radishes—sow occasional crops once a fortnight, and water the advanced early crops in dry weather; and thin those that are too thick, to two or three inches distance.

——— *Turnip radishes*—sow of the small white and red sorts; and thin early crops to two or three inches distance.

Rhubarb—may now be planted: a few plants set at two feet distance, it being of large spreading growth: the young fleshy footstalks of its large leaves possessing an agreeable tartish relish, are occasionally used for tarts, &c. in April, May, &c.

Scorzonera, salsafy, and skirrets—may still be sowed (m. l.)

Small sallading—sow every week or fortnight, of cresses, mustard, radish, and rape, in open situations, beds, or borders, &c.

—— sow or leave proper supplies of the above small sallading, to produce seed.

Spinach—the round leaved sort, sow once a fortnigbt for successional crops, broad-cast, and raked in regularly; or some may be sowed in broad shallow drills.

—— or may sow spinach between rows of young cabbages, cauliflowers, beans, &c. either broad-cast and raked in, or in drills as above.

—— *Hoe and thin early spring spinach* to three, four, or five inches distance; especially that sowed broad-cast, that the leaves may attain a large thick growth.

—— Leave some old winter spinach for seed.

Strawberries—may be planted, and (b. m.) complete the spring-dressing of old beds. [See MARCH, JUNE, SEPTEMBER, &c.]

—— *Give air and water to strawberries forcing in hotbeds*—and place more pots thereof in a hotbed or hot-house (b.) for the last forcing crop.

Turnips—sow a moderate crop (b.) and a larger (m. l.) as the first will soon run: hoe early sowed crops, and thin them to six or eight inches asunder.

FRUIT GARDEN AND ORCHARD.

The principal business now in this district, consists in completing all intended planting, and to finish all remaining winter pruning as soon as possible, and to give occasional watering to new planted trees: to finish all grafting, defending tender wall fruit from frost; and in some sorts of wall trees, to commence their summer pruning (l.) by displacing useless shoot-buds of this year's production. [See *below.*]

Planting—may still be performed, but should be wholly completed (b. m.) in the different sorts of wall, espalier, and standard fruit-trees; giving water as soon as planted, and repeated occasionally the first three or four weeks.

Suckers, cuttings, and layers—of fruit trees, finish planting and laying (b.)

Disbudding—or rubbing off useless shoots of the year, wall trees, may be commenced in some early shooting kinds (m. l.) as apricots, peaches, nectarines, taking off only the foreright productions at present.

Heading down—in young wall trees, espaliers, &c. in the first shoots of only a year old, from budding and grafting, if omitted last month, should now be finished (b.) whereby to obtain a production of lateral shoots, to form the head; which should always be performed on the first shoots from budding, &c. produced last summer, cutting them down to five or six eyes. [See MARCH.]

Winter-pruning—unfinished, complete now as soon as possible (b.) in all wall trees, espaliers, and standards

In former-pruned wall trees, &c.—if any decayed shoots, or ends of any are dead, prune them to the live wood.

Defend wall trees—of apricots, peaches, and nectarines, now in blossom and young fruit, from frost, by the means advised last month.

Thin young wall fruit—of apricots (m. l.) if in clusters.

Stake new-planted standards—of tall growth, if much exposed to the winds.

Mulch fruit trees—of late planting, spreading it on the ground over the roots; especially where exposed to the sun, that it may keep out the drought, and preserve the moisture in the earth.

Grafting—may still be performed; but let the whole be completed (b.)

Nailing and tying—in wall trees and espaliers, finish according as each tree is pruned.

Clear fruit trees—both young and old, from all root suckers, and shoots emitted from the stems.

Caterpillars—appearing in their webs on fruit trees, clear off, before they over-run the general branches, and devour the leaves.

Water—in dry weather all late planted fruit trees, once a week moderately.

Dig fruit tree borders—or others formerly digged and become hard, or the surface bound, loosen the earth about the trees, and between rows of gooseberries, currants, &c.

Vines—unfinished in the general winter pruning and nailing, should now be wholly completed (b.) as soon as possible. [See MARCH.]

——— And vines having had the proper general pruning and training as above, either in the foregoing or present month, and now advancing in their spring shoots, it would be proper (l.) to begin displacing or rubbing off the most useless and improper. [See MAY.]

——— *Cuttings of vines*—for propagation, finish planting (b.) either in a nursery, or where they are to remain.

Layers of vines and figs—may be successfully effected (b. m.) choosing principally the young wood; and layed in the common method, they will root effectually the same year. May also lay vines in pots; having largish pots of light mellow earth, bend the body of the layer shoot down into the earth several inches deep, with the tops uprightish, and shortened above: or may occasionally perform the laying, by drawing the shoot through the hole at the bottom of the pot, and filling up with earth; but preferably the former: and, in either method, when they are of one, two, or three years growth in the said pots, may be transplanted with the ball of earth about the roots entire; or some may remain in the pots to be moved occasionally where required, or to place in a stove or forcing-house for early fruiting, as may be thought expedient.

Hot walls, &c.—for forcing early fruit, should have moderate fires night and morning, or bark beds therein, to support them in a proper heat; air to be admitted in warm days to the trees and advancing fruit, and occasionally watered at root and top: keep the glasses shut every night, and in cold weather.

—— *in the above* forcing houses, some early cherries will be now ripe, and plenty of strawberries, and sometimes early grapes (l.)

Hot walls, &c.—may still introduce therein, strawberry plants in pots (b) raspberries &c. in pots, and kidneybeans, and flower plants.

FLOWER GARDEN AND PLEASURE GROUND.

The flower garden, pleasure ground, and shrubbery, should now have all necessary articles for sowing and planting of flowers, shrubs, trees, &c. completed; and all parts put into the neatest order, by digging, hoeing, raking, sweeping, rolling, mowing, &c.

Sowing—generally now finish, mostly in annuals, biennials, and perennials; and in all trees and shrubs.

Planting—may still be continued in fibrous rooted perennials and biennials; but finish planting all bulbs (b.) and most kinds of flowering shrubs, and various trees, both deciduous and evergreens, (b. m.)

Borders and beds—should be digged or hoed, and carefully raked, both to appear neat, and to be ready for the reception of seeds and plants of flowers that may be intended.

Edgings—finish planting; and any old edgings that are irregular, make good the deficiency, and clip or trim to proper order.

Edge grass walks, &c.—close and even.

Gravel walks—weed, sweep, and roll every week.

——— Finish turning and fresh laying gravel walks; also complete making new where intended.

Grass lawns, &c.—continue to pole, roll, and mow frequently, to have a clean even surface.

—— *Lay grass turf*—where wanted, or sow seed; but the former is considerably preferable.

Watering—give in dry weather to plants in pots, seed-beds, late planted articles, and annuals in hotbeds.

Annual flower seeds—of all sorts mav now be sowed, both of hardy and tender kinds.

——— *Hardy annuals*—may now be sowed in full collection, in borders, beds, pots, &c. (b. m.) to remain where sowed, for flowering the same year, as expressed in the list of annuals; all of which sow in small patches, each sort [illegible]; or some in drills, as may be required.

——— *Tender annuals*—sow in hotbeds (b. m.), the principal supply for the general blow, to plant out in May and June; as in the list of tender annuals. Or in want of hotbeds, most of these may now be sowed in a warm border, or pots, &c. (m. l.) and those raised last month, or this, prick in another hotbed, or some in pots plunged therein, to forward them in growth till May or June.

Perennials—of all sorts that are raised from seed, may now be sowed for flowering next year; and young plants of last year's seedlings, and old plants, slips, off-sets, &c. may likewise be planted in beds, borders, or pots, to flower the same season, in summer and autumn.

Biennial flower seeds—of all sorts, should now be sowed for flowering next year; all sowed in any bed or border, to prick out in summer.

—— *Finish planting biennials*—(b.) of last year's seedlings, &c. for flowering this year in their proper season.

Perennials and biennials—may still be transplanted into beds, borders, pots, &c. to flower the same year.

Part, or slip roots—for increase of late shooting, or moderate growing perennials, and plant the slips, &c. some will flower the same year.

Pots of plants—fresh earth at the top, or shift into larger pots, as required; and give water in dry weather, or pot any herbaceous or shrubby plants required. (b. m.)

Auriculas in pots—curious sorts now in bloom, place on a stage covered at top, to defend the flowers from rain and the full sun, and water the pots.

Anemones and ranunculusses—finish planting (b.) for a late blow. [See MARCH.]

Balm of Gilead—sow in a hotbed or warm border, and may plant slips, cuttings, and off-sets thereof, which may be greatly forwarded by the aid of a hotbed.

Carnations—finish planting (b.) in pots, beds, or borders, to blow the ensuing summer.

—— finish shifting carnations from small pots into larger (b.) [See MARCH.]

Hydrangia may now be planted in pots.

Mignionette—sow in beds, borders, or pots, for its sweet scent; and prick some early raised young plants in pots, four or five in each.

Passion flower—if in request, plant against a south wall (b. m.) and prune such as require it, cutting out the weak shoots, and thin the superabundant regularly, leaving the strong ones for flowering; and shortened, then nailed up regularly.

Pinks and daisies—may still be planted; and may also plant slips, and part the roots, &c. of these plants for increase where required.

Roses—plant of suckers, or full plants (b. m.)

Runners—scarlet and large white kidney beans, plant in borders, &c. as flowering plants, (l.); sow also convolvulus-major, nasturtiums, sweet peas, &c.

Stocks, Brompton, &c.—sow (m. l.) for flowering next year.

Ten-weeks stocks—sow plenty now for transplanting to flower this summer; or sowed in patches, &c. to remain and be thinned.

Tuberoses—plant some roots in pots, in a hotbed or hot-house.

Wall-flowers—may still be transplanted with balls of earth; sow seed; and propagate double bloody kinds, by slips and cuttings of young shoots.

Bulbous roots—any remaining out of the ground, plant as soon as possible, (b.)

——— In flower, curious sorts in beds, as fine tulips, hyacinths, anemones, and ranunculuses, if defended from sun, rain, and bad weather, with mats, &c. will continue longer in perfection.

——— Early flowering bulbs, out of bloom and the leaves decayed (l.) may be taken up. [See MAY and JUNE.]

New work—or alterations carrying on or intended, should now be completed, ready to furnish with seeds and plants in proper time.

Forest trees, &c.—complete all intended planting and sowing. (b.)

Cuttings, suckers, and layers—finish planting layers of evergreen shrubs and trees, and late shooting deciduou kinds.

Propagate—plants by slips and off-sets, parting roots, &c. and trees and shrubs by layers and cuttings; some by grafting &c.

Grafting—may be performed in any curious varieties of trees, &c.

Pruning—required in any shrubbery compartment, or tree plantations should be completed.

Clipping—may be performed in edgings and hedges where needful.

Evergreens—of all tree and shrub kinds, may still be planted (b. m.) and well watered; and it is now a proper season to plant any of the more tender or curious sorts of evergreens, removed with balls, if convenient.

——— *Prune*—where they require, or are of disorderly growth; and cut out decayed wood, this being a proper season for pruning these kinds.

——— Finish sowing seeds of evergreens.

Flowering shrubs—finish all intended planting (b. m.)

Lombardy poplar—a most swift growing tree for speedy shade, shelter, &c. may yet be planted (b. m.); and cuttings thereof most freely grow.

Magnolia—a superbly beautiful evergreen, may now be planted, allotting it a sheltered, but conspicuous situation.

Strawberry-tree, or arbutus—an elegant evergreen flowering shrub, may now be planted in some conspicuous shrubbery clump, flower border, or in a grass plot: is beautiful as an evergreen, and very ornamental in its numerous small white flowers, and strawberry-like fruit in autumn.

Walnut and chestnut trees—may be planted in young trees or nuts.

Climbing plants—both shrubby and herbaceous, may be planted and sowed (b.), to run over arbours, bowers, &c. or to ascend upon sticks in borders, &c. and the Virginia-creeper upon lofty walls.

Strawberries—may be planted for edgings, or plant some in the borders, &c. singly, or three together, in small clumps.

Hedges—finish planting (b.), and cut and regulate old hedges where they stand in need.

WORK IN THE NURSERY.

In the two last months having advised the several works of planting and transplanting, sowing seeds, and other methods of propagating the different sorts of trees, shrubs, and plants, to be forwarded as much as possible, as being the principal season for performing these operations; and also to complete all the principal spring business of digging, and several other necessary works of nursery culture; which, if any now remain, it should be generally finished this month; and other requisite work performed as directed under their respective heads.

Propagate by layers—many sorts of evergreens in the young wood of last summer; they will be rooted for planting off in autumn.

——— Finish laying deciduous kinds the beginning of this month.

Plant cuttings—of trees and shrubs, which in the deciduous kinds finish early in the month; and evergreens as soon as possible.

Finish planting suckers—(b.) especially of all deciduous trees and shrubs; and evergreens (b. m.)

Plant slips, suckers, and cuttings—of many sorts of under shrubbery plants; as rue, rosemary, lavender, southern wood, and many others of similar growth.

———*Herbaceous flower seeds*—all sorts of perennials and biennials, may now be sowed, by which numerous speciesand varieties will be raised, all for flowering next year.

——— *Likewise propagate perennials*—by slipping and parting the roots, and by which numerous sorts may be increased.

——— *But in biennials*—they are raised principally by seeds sowed annually at this season.

The sowing of tree and shrub seeds—should now be wholly finished (b. m.) especially in all the deciduous kinds intended for spring sowing.

——— Also evergreens, most sorts of which may still be successfully sowed, as all sorts of pine and fir, cedar, juniper, cypress, bays, evergreen, oak, arbutus, magnolia, and many other sorts.

Evergreens—most sorts may now be more safely planted (b. m.) this month, than at an earlier season in cold weather. Therefore now plant or transplant all sorts of evergreens, both seedling plants and others that may be required in nursery rows, at proper distances; (*See list.*) and, as soon as planted, it would be advisable to give a moderate watering, to moisten and settle the earth about the roots.

In transplanting evergreens of larger growth—it would be of particular advantage to remove any favourite or principal sorts with a ball of earth about the roots, replanting them with the ball entire.

——— *In deciduous trees and shrubs*—however as intended, or particularly required for planting at this season it is advisable only to plant such as have not advanced, or but very little, in the spring shoots: and should be wholly finished early in the month.

Finish planting out all seedling and other young plants—of deciduous trees and shrubs, as early in this month as possible before they begin to shoot, as it would then be too late to transplant many sorts successfully. [See the NURSERY of FEBRUARY and MARCH.

Examine seed-beds—of trees, shrubs, &c. sowed last autumn, or early this spring; keep them clean from weeds, and give occasional watering in dry warm weather.

Tender exotics in pots—any tender or curious sorts, planted or sowed in pots this spring, may be forwarded by plunging the pots in a moderate hotbed,or bark pit, under a frame,those which have only been under occasional protection in cold weather should now be fully exposed; and some of advanced growth may be planted in the full ground.

Grafting—if not finished last month, should now be wholly completed the beginning of this.

Any pruning—not yet finished, should now be completed and this is now a proper season to perform any principal pruning in all sorts of evergreens.

Finish all digging—both in compartments for sowing and planting, and between rows of young trees, &c.

THE GREEN HOUSE.

The exotics of the green-house must still be continued therein, but will now require a large share of free air, frequent waterings, the pots of some fresh earthed, and others shifted, &c.

Admit air—in mild days, from morning till evening; but shut close when cold, and every night.

Waterings—will be necessary once or twice a week.

Clean the leaves—of oranges, lemons, and of any other exotics that are foul, by washing the large-leaved kinds with a sponge, and the others by watering over the branches and leaves.

Decayed leaves, shoots, &c.—clear away.

Fresh-earth—the tops of the pots not yet done this spring, previously loosening the old earth.

Shift into larger pots, &c.—with some fresh earth, any plants that are in pots or tubs too small: removing with the ball of earth entire, and watering. [See MARCH.]

And where any of the large growing plants, as oranges, lemons, and American aloes, now growing in the largest sized pots, are considerably advanced in growth, they should be shifted from the pots into tubs of a larger size; and any in tubs too small, should be shifted into others of larger dimensions. [See the GREEN-HOUSE of last month.

——— Of those not shifted, loosen the top earth, and add a little fresh compost. [See MARCH.]

——— Plants appearing in a sickly or infirm state, it would be advisable to shift them into entire fresh earth, previously pruning any decayed roots, branches, &c.

Pruning or heading down—may be performed to any myrtles, geraniums, oranges, &c. having straggling or naked shabby heads, that they may break out full in young shoots.

Planting green-house plants—finish in any sorts required in pots of common rich earth,or moderate loamy composts; but the succulents should generally have a dry light soil.

——— *Orange and lemon*—sow kernels in pots in a hot-bed, to raise stocks for budding.

————— Plant young orange stocks of last year separately in small pots, and may be forwarded in a hotbed.

——— Young oranges, lemons, and other exotics imported from Italy, &c. at this season, if any are obtained, wash and soak them in water, then plant them singly in pots; and if plunged in a bark-bed, made in a glass case, &c. it will forward their rooting and production of shoots more effectively.

Propagate—green-house plants, by suckers, layers, slips, cuttings, off-sets, seed, &c.

Cuttings—of myrtles, geraniums, &c. heaths, and various other shrubby kinds, plant of the young wood in pots; and if forwarded in a hotbed or bark-bed, will root much sooner. [See MAY and JUNE.]

Seeds—of green-honse plants sow in pots in a hot-bed.

Succulent plants—may be shifted where any want larger pots; and suckers and cuttings therereof planted.

THE HOT-HOUSE.

The principal requisite works of this department is still to support a proper heat by constant bark-beds, and by fires of nights and mornings; with supplies of fresh air in warm days, and moderate waterings; and the young *pines,and some other* plants,require shifting into larger pots.

The bark bed heat—will now require to be renewed with about one-third of new tan, if not done last month; first take up the pots of pines, and remove some of the waste, or earthy old bark, at top, then apply the fresh tan, the old and new forked up together, and directly replunge the pots of plants.

Fire-heat—will still be necessary every evening and cold mornings.

Air—should be admitted moderately in mild sunny days; but shut close when cold, and all night.

Watering—will be necessary about once or twice a week, according as the different sorts of plants shall require.

Shifting—into larger pots, with some fresh earth, may be performed to any other hot-house exotics that require it, except the fruiting pines aforesaid.

Clean any plants—that are foul, by washing or watering over the leaves.

Vermin—appearing on the pines, or other plants, should be exterminated, which should be very particularly attended to, especially those small vermin which often destructively invade the pine plants.

Propagate hot-house plants—by cuttings, suckers, offsets, slips, layers, and seed; all in pots plunged in the bark bed.

To force in the hot-house—may still admit pots of strawberries, kidney-beans, flower plants, &c. (b. m.); give frequent waterings.

Pine-apple plants—now advancing in young fruit require a good bottom heat, supported in the bark bed observing as above, and give proper moderate watering.

——— *Succession-pines*—for future fruiting, will now require shifting (b. m.) into larger pots (32s) with some fresh earth, if not done in March; and the heat of the bark bed to be then renewed, with some fresh tan, and forked up, as above advised.

——— But observe, the present fruiting pines must no be shifted, only as any particular plants, on discovering a defective growth or unhealthful state, may require; in which case draw them out of the pot with the ball of earth entire; trim off some of the loose outward old earth a sides and bottom; add some fresh in the pot: and replace the plant therein, filling up with more fresh mould, and directly water and replunge in the bark bed.

Crowns and suckers—of pines where they occur, may also be planted for propagation, each separately in a small pot, and placed in the bark bed of the pinery or succession-house, &c. to form new young plants.

MAY.

THE KITCHEN GARDEN.

The general principal crops having been sowed and planted in the spring, they will now want weeding, hoeing, thinning, and some pricking out and transplanting; and several successional crops are necessary to be sowed and planted, and some main crops for autumn and winter.

Sowing and planting—is necessary now for several successional summer crops, and some full crops for autumn and winter supply; mostly all in the natural ground, and some in hotbeds.

—— But if any main crops were omitted sowing or planting at the principal general season in the spring months; such as sowing onions, leeks, carrots, parsneps, red beet, lettuce, celery, asparagus; and planting cabbages, cauliflowers, artichokes, potatoes, &c. it should now be done (b.) the first week, though onions in particular, when sowed too late, seldom head or bulb in any tolerable perfection; they however will serve to draw young and in small bulbs, for immediate use in summer and autumn; nor will parsneps and red beet root grow so large, but better have some small or middling roots than none: carrots will succeed in tolerable growth.

Crops failed—of the spring sowing, through bad seed or inclement weather, &c. loose no time in replacing, but sow and plant again as soon as possible, with the same or other crops.

Plant—beans, kidney-beans, cabbages, coleworts, early savoys, broccoli, borecole, lettuce, early celery, and endive; late crops of potatoes, and spring-raised cauliflowers; also pot herbs and aromatic plants, before omitted; and from hotbeds (m. l.) capsicums, love apples, gourds, and basil.

Prick out—and thin seed-beds of young plants for transplanting, especially in showery weather; as cabbages, cauliflowers, broccoli, borecole, celery, savoys, &c. thinning them out where thickest, and prick them in other beds, three or four inches asunder, to acquire strength for final transplanting next month and July, &c. giving water.

Plant out finally—successional crops of cabbages, lettuces, cauliflowers, and coleworts; also early celery and endive, capsicum, love apples, gourds, pompions, cucumbers, &c.

Thin—various close crops; as carrots, onions, leeks, lettuce, turnips, parsneps, spinach, salsafy, scorzonera, Hamburgh parsley, beets, &c. also in seed beds; as cabbages, cauliflowers, broccoli, borecole, savoys, celery, &c. for pricking out.

Seeds to produce—leave some parsley, spinach, lettuce, leeks, celery, endive, small sallading, chervil, coriander, purslane, broccoli, borecole, Welch onions, turnips, radishes, &c. support particularly onions and leeks, by stakes and lines along the rows.

Hoeing—perform in dry weather, to cut down weeds between all plants in rows, as cabbages, cauliflowers, peas, beans, &c. loosening the surface, and drawing some earth to the stems; also to thin and clear from weeds, by the small hoe or by hand, several close crops, as onions, carrots, turnips, parsneps, beets, spinach, leeks, lettuce, salsafy, &c.

Hand-weeding—is now required in many seedling plants, before the weeds increase much.

Watering—in dry weather, is necessary to all new planted crops, and seed beds of small plants.

Hotbed—provide and prepare fresh supplies of dung (b.) for making the last hotbeds for cucumbers and melons, and for occasional linings. Finish making frames and hand glass hotbeds, for cucumbers and melons, and when the heat is declined, applying hot dung to the sides, to support a moderate bottom heat all this month; and they must still be covered with mats or straw over the glasses on nights, and for shade in hot sunny weather. Admit air to them every warm day, by tilting the glasses behind in the frame beds, an inch or two, or more, according to the heat of the day, and the hand glasses raised on the south side one or two inches, or according to the temperature of the weather, and as the sun is less or more powerful, but shut close of nights.

Oiled paper frames—prepare for melons and cucumber ridges, as above, to place over the beds this month or next, both in some of those planted under hand glasses, the glasses being previously moved away; or, in want of such glasses, may at this season, place the paper frames immediately over the bed and plants; which frames are beneficial by defending those beds effectually from rain and cold, admit sufficient light, and are a fine shade from the scorching sun; by which excellent crops of melons are obtained in autumn, and cucumbers in summer, &c. [See JUNE.]

Aromatic, sweet, and pot herbs—may still be sowed (b.) and most perennial sorts planted in slips, off-sets, and full plants, as required.

Artichokes—hoe to destroy weeds, and loosen the earth about the plants; and complete planting all that are intended, (b.)

Asparagus beds—both old and new, and seed beds, will now require a careful weeding.

——— Old asparagus beds will at this season be in full production of young shoots for gathering, which, when two or three, to four or five inches high, are proper for cutting, while the top buds remain compact and firm.

——— In gathering or cutting asparagus, be careful not to injure the advancing young buds that are rising within the ground: for as several shoots are generally arising from the same root, in different degrees of successional growth, should therefore, in gathering the proper advanced shoots, be careful to thrust the knife straight down, close to each shoot, cutting it off about three or four inches within the surface, in a slanting direction downwards; the others will advance in regular succession for cutting two or three times a week.

Beans—plant successional crops of the large or sword long-pods, white blossom beans; also of broad beans, such as Windsor, Toker, and any other sorts required, generally at this season planting some once a fortnight or three weeks; and hoe and draw earth to young beans that are up.

—— Top early beans and others in full blossom, to turn the whole nourishment to the advancement of the pods.

Kidney-beans—sow or plant full crops of the Canterbury, Battersea, speckled dwarfs, and other dwarf sorts. (b. m.)

———— Likewise sow runner kidney-beans of the scarlet, large white runner, Dutch, and other sorts.

———— If any dwarf or runner kidney beans were sowed in a hotbed last month for transplanting into the natural ground, they should be planted out when two or three inches in growth, in a warm border.

Red beet—for its root, thin to ten or twelve inches distance; and the green and white, six.

Borecole--plant out some of the strongest spring-raised plants, two feet and a half asunder to obtain a large growth for autumn and winter.

—— Sow the last crop (b. m.)

—— Prick out small seedling plants of borecole from seed-beds, three or four inches asunder.

Broccoli—plant out early raised plants two feet asunder, for heading in autumn and winter.

—— Sow a full crop of purple and white broccoli (b.m.) for winter and following spring.

—— Prick out small seedling broccoli from seed-beds, at three inches distance.

Cabbages—hoe between, and draw earth about the stems; and in earlier crops of cabbages, tie up the leaves to forward their heading.

——— Plant out spring-raised cabbages for summer and antumn use, and for cabbage coleworts in the same seasons.

——— Sow cabbage seed of the Yorkshire, Battersea, or sugar-loaf sorts, both for coleworts and young cabbaging towards the latter part of summer and in autumn and also sow turnip-cabbage, Anjou cabbage, Milan cabbage, Brussels sprouts, and large Scotch cabbage, for autumn and winter use.

——— Plant out some early raised Savoys at two feet distance, to produce large heads in autumn; sow the last crop (b.); and prick out small plants from seed-beds, three or four inches apart.

Capsicum, love-apples, basil, gourds, &c. plant out from hotbeds (b. m. or l.) when settled warm weather.

Carrots, parsneps, and red beet—now require clearing from weeds, and thinning to proper distances, either by hand weeding or small hoeing.

———— The carrots thin about four to six or eight inches, in which those intended to draw for use in young growth, in thinning order as wanted, may now be thinned only about four or five inches: but those designed to grow to a large size for the main crop, thin from about six to eight inches asunder.

Carrots, parsneps, and red beet—carrots may be sowed, a small crop to draw young the latter end of summer and autumn.

Cauliflowers—the early hand-glass crop, now well advanced, should have the glasses now entirely discontinued, (b.) if not done last month: and if very dry weather, give one or two good waterings, to make the heads grow large, previously hoeing some earth round each plant to contain the water. Sow cauliflower seed towards the 24th of this month for the Michaelmas and winter crops. [See JUNE, JULY, OCTOBER. &c.]

Celery—early raised, plant out in trenches for blanching. [See JUNE and JULY.]

—— Prick out young celery from the seed-bed three inches asunder for future transplanting.

—— Sow a good crop of celery now (b. m.) for autumn and winter; water in dry weather.

Coleworts—plant or sow seed of the sugar-loaf, or Yorkshire cabbage kinds, &c. for summer and autumn.

Coriander and purslane—sow small successional crops, in a bed or border.

Cucumbers—sow and plant the last crops in hotbeds both under frames and hand-glasses.

———— To cucumbers in hotbeds, give air freely every day, and frequent moderate waterings: support a good moderate heat in the beds, by occasional lining with hot-dung on the sides; and cover the glasses every night.

———— Impregnate, or set the young cucumber fruit in blossom. [See MARCH.]

———— Make hotbed ridges, either on level ground, three or four feet wide and two and a half high, or in trenches that width, and half a yard deep, earthing the bed eight inches thick; place the hand glasses three feet asunder, and when the earth is warm, place three or four plants under each glass; water and shade them till they take good root, and cover the glasses and bed every night.

———— Or in want of plants for the above ridges, may sow seed under each glass to remain.

———— Or also, in want of glasses, may put in some young plants or seed in patches the above distance, along the middle, and the hotbed protected with oiled paper frames, or covered with mats of nights and bad weather.

———— Where hot dung is scarce, or not sufficient to *make regular beds*, you may at this season dig holes two feet wide and a foot deep; fill them with hot dung, then earth them over, and put in plants or seed, as above, and defend similarly.

——— Cucumbers may now be sowed in the open ground (l.) for pickling and other occasions; allot them a rich compartment of ground, or some on a warm south border; dig or loosen the earth in patches about fifteen inches wide, by three, four, or five feet asunder, each patch gradually hollowed in the form of a bason, about an inch deep; and sow several seeds in the middle part of each half an inch to an inch deep in the earth. And may also sow some close under a south wall or pailing, &c. both in order to have the benefit of these sheltered warm situations, and the opportunity of training some part of the plants to the wall, for the improvement of the fruit in a clean regular growth and good flavour. [See also JUNE.]

Endive—a small crop of the white and green curly sort may be sowed for early use, and plant out the earlier raised plants; but as what is raised before June will soon run to seed, should now sow or plant only a small supply.

Finochio—sow a sucecssional crop, and hoe and clean the former sowed. [See APRIL.]

Gourds and pompions—plant out from hotbeds, &c. (b. m.) planting some gourd kinds near walls, rails, arbours, &c. on which to train them.

——— Or sow gourds, &c. in the natural ground (b. m.) to remain; or in a hotbed (b.) to forward them for transplanting (m. l.)

Leeks—weed and thin, and may sow some (b.) for late transplanting.

Lettuce—thin the main crops, and plant out plenty at a foot distance, of cos and other principal sorts.

—— Tie up the leaves of early cos lettuce for cabbaging, but not too tight.

—— Sow and plant lettuce for successional crops two or three times this month.

Melon hot-beds—give air every day, and apply moderate waterings, but more sparing where the young fruit is setting, as much moisture would make them go off in their infant state; still keep up a tolerable good heat in the beds, by lining occasionally, and cover the glasses every night with mats or straw.

—— For hand-glass crops of melons, finish making hot-bed ridges, observing as directed for cucumbers; earth them eight or ten inches with some mellow loamy compost, or other rich mould, place the glasses a yard asunder, and plant one or two melon plants under each; water, and shade them from the sun, till they take root and grow

——— Likewise plant melons in a hotbed, as above, to be covered with oiled paper frames.

——— Finish sowing melons (b.) to ridge out, as above, the latter end of the month, for a late crop.

Mint--may still be planted, either by rooted young plants or cuttings of the stalks well watered.

Nasturtiums—may be sowed (b. m.) if omitted last month.

Parsley—if before omitted, may still be sowed.

——— Hamburgh, or large rooted parsley, hoe and thin to six inches distance.

Potatoes—finish planting (b. m.) if omitted before; they will come in for a tolerable crop in autumn.

Pot and aromatic herbs—may be sowed (b. m.) if before omitted; and there may be planted if required; both in full plants, and by slips, off-sets, cuttings, &c.

Radishes—sow once a fortnight for succession, both of the short-top red, plenty of the salmon kind, and some turnip radishes.

Sage and savory—plant slips of the young shoots in a shady border, and water them.

Salsafy and scorzonera—hoe and thin to six inches distance.

Small sallading—sow once a week of cresses, mustard, rape, and radish; watering in dry weather.

Spinach—sow some once a fortnight for successional crops as the plants now soon run.

——— Hoe and thin spinach, when an inch or two in growth, especially that from broad-cast sowing, leaving the plants three or four inches asunder.

——— Leave some strong spinach plants for seed.

Strawberries—shooting in numerous runners, should have some of the grossest cleared away, that they may not crowd the main plants; and when in blossom give water abundantly in dry weather.

Tarragon—plant cuttings of the young shoots, and water them.

Turnips sow—now in full crops; and hoe and thin those sowed last month.

FRUIT GARDEN AND ORCHARD.

Having finished all planting and winter pruning in the different sorts of fruit trees the preceeding months, and as the wall and espalier trees will now be advancing in numerous young shoots, the principal business at this time is, to commence the summer pruning, by removing the ill-placed and superabundant productions, and to give occasional waterings to late planted trees.

Mulch—continue to late-planted fruit trees, spread on the ground over their roots, especially where exposed to the sun, to defend them from the drought, and to preserve moisture in the earth.

The pruning—principally required at this season, and all summer, is chiefly in wall-trees and espaliers: not so generally necessary in standards.

——— In going over wall trees in their early shooting, to rub off the useless productions, the work can be more expeditiously and correctly performed with advantage to the trees and fruit, and save considerable time and pains that would be required in the more advaneed state of the shoots, as the improper ones may now be readily displaced without the use of a knife, by rubbing them off close with the thumb and finger.

——— Improper and useless shoots, advancing in wall and espalier trees, consisting of foreright productions, and others that are ill-placed, should be removed in their early growth, as unfit for training with regularity; also the superfluous or over abundant shoots.

——— But regular placed side shoots in wall trees, and a terminal one to each branch, must be reserved in all parts at this time, for training to the wall and espaliers when of due length.

Superfluous shoots—are such as are abundantly more than is wanted or necessary, or there is room to lay in with proper regularity, they should be reduced in a thinning order, pruning out close those of the most irregular and improper growth; retaining for the present, till winter pruning, an abundant supply of the best well placed side shoots, and a leading one to each mother branch.

Side shoots—in all wall trees and espaliers, produced from the upper and under sides of the branches, should be preserved now in due abundance, as the most proper regu lar growths for training in for requisite supplies of wood and bearers; and from which prune away the ill-placed and superabundant.

Terminal shoots—or leaders at the end of the branches in wall and espalier trees, should in the summer pruning be preserved, one generally of principal growth to each branch; for the present, and continued entire, and displace the others in that part.

All the retained and proper shoots—now preserved for training to the wall and espalier, should mostly continue entire, not shortened now, nor any time in their summer's growth, especially where there is room to run them; and when of proper length this or next month, they should be trained in regularly.

Pinch or top strong shoots of the present year—in vacant parts of wall and espalier trees (l.) to obtain laterals therefrom the same season, to supply the void spaces.

Budded and grafted young trees—should have all shoots from the stem, and suckers advancing from the roots displaced.

In grafted trees—of this year, the clay may still be continued to defend the grafted parts.

Wall-trees protected—the blossoms and young fruit of which were covered in the preceding spring months, should have now all covering discontinued and removed, as the fruit will now be of some advanced growth.

Thin wall fruit—as apricots, peaches, nectarines, plums &c. where the fruit set too thick, or in clusters. The thinned off young green fruit is proper for tarts.

Vines—will likewise be now advancing considerably in their young shoots, and it is therefore adviseable to regulate them as soon as possible in their early growth, by removing all the ill-placed and improper ones, but carefully retaining the strong well placed shoots, and all those furnished with young fruit, now appearing, which is only produced in the shoots of the year, advancing from those of the year preceding; and when the retained shoots are in general about a foot long, train them regularly to the wall.

Blights or insects—sometimes attacking the leaves and shoots of wall-trees, &c. at this season should be prevented from spreading, by pulling off the distempered, or infested crumpled leaves; and pinch and prune off the bunched clammy ends, and other parts of the distempered young shoots, to prevent the malady from spreading destructively to the trees and fruit.

——— Or in case of small insects, strew also tobacco dust, or Scotch snuff, over the branches and leaves.

——— Also in blighted trees, and of weakly growth dig and open the ground, and apply a compost of loamy or other fresh earth and rotten dung mixed together; work it in about the roots some considerable width, and water occasionally.

——— Likewise in blighted wall and espalier trees, &c. or attacked with small insects, in dry hot weather it is of advantage both to water the roots, and with a garden watering engine, play water in a strong stream against the branches, leaves, and fruit.

Caterpillars—where they appear in webs on fruit trees destroy as much as possible before they increase much in growth to overrun and devour the leaves; also water the branches, as above.

Snails—where any attack the young wall fruit, should be searched for early in a morning, and after rain.

Water—to late planted fruit trees, will be proper in dry hot weather, once a week.

In fruit forcing houses, &c.—where early fruit is advancing, continue fires on cold nights and mornings; or where bark beds, &c. support them in proper heat, by forking over when declining; admit air in warm days shut close towards evening, and all night; and water the borders occasionally. Also prune and train-in the young shoots, to admit the sun to the fruit; which, in some sorts, will now be ripe; as grapes and cherries (b. m.), sometimes apricots, peaches, (m. l.), plenty of strawberries, some early currants, &c.

FLOWER GARDEN AND PLEASURE GROUND.

As in the preceding spring months, the several compartments of the flower garden and pleasure ground having been mostly furnished with the principal supplies of seeds, plants, shrubs, and trees, that were wanted, the principal care now is to keep the beds, borders, shrubberies, &c. clean from weeds, watering some late planted articles; also to keep the walks, lawns, &c. in neat order. Annuals may be transplanted from hot-beds, and warm borders others in the borders may be thinned, and some sowed, likewise some sorts of small, or moderate shooting perennials or biennials, may still be removed with balls, and planted occasionally, for flowering the same year.

Sowing—may be performed in most sorts of annuals, biennials, and perennials; the former to flower the same summer, but the two latter the year following.

Plant—flowering plants, particularly tender annuals, from hotbeds into borders, beds, pots, &c. and occasionally biennials and perennials, where omitted before, in full plants, to flower the same summer, transplanting them with balls of earth, and watering slightly. Planting may also be performed in some moderate shrub kinds, especially in evergreens (b. m.) and in lilacs and privet, &c. removed with balls of earth about the roots, especially in showery weather.

Clean and dress—the flower and pleasure garden, by hoeing and raking the borders, weeding, sweeping, rolling the gravel, and mowing the grass. Clearing away all littery and decayed parts of plants; trim and regulate any disorderly and straggling growths, in the advancing flowers, and support and tie up such as require it, in a regular manner.

Stick or stake and support plants—such as run up with tall or long weak stalks, and all climbing kinds.

Biennials and perennials—finish sowing (b. m.) if omitted before, for flowering next year; and old plants thereof of moderate growth, may be transplanted with balls of earth to the roots, and well watered, to flower the same year.

Prick out seedling plants—of annuals from hotbeds, and early sowed perennials and biennials from seed beds.

Annuals—will require thinning, some pricking out and transplanting, and some sorts sowed.

—— *Hardy annuals*—raised in the borders, beds, pots, &c. in patches, where they are to remain for flowering, will require thinning in some of the larger growing sorts, some to one in a patch, as sun-flowers, persicaria, palma Christi, Belvidere, love-lies-bleeding, &c. others of less growth, to three or four in a patch; and small kinds may remain several together; some of the plants thinned out if planted, and watered, will grow.

—— *Sowing hardy annuals*—may yet be performed in most sorts, either in default of sowing before, or to flower in succession.

—— Water the patches of hardy annuals in dry weather.

Tenderest annuals—sow in hotbeds, if omitted before, and plant in pots singly, if not before done; or those in small pots remove into larger; or prick some smaller young plants in the earth of the hot-beds, all to remain in the hotbeds till (m. l.) this month or (b.) next: then remove into the open air, and plant some in the borders; or any larger growing kinds required to run up in a tall growth, as large cock's-combs, &c. should be plunged in a hotbed (b.) under a deep frame, or so as the frame can be raised occasionally as the plants draw up in height. To all the above tender annuals, in hotbeds, admit air every day, and give water two or three times a week, or as required.

Less tender annuals—raised in hotbeds or under glasses, should have plenty of air, and give proper waterings; and those in hotbeds or frames, should have the glasses now taken off daily in fine weather, and in warm nights, to harden the plants by degrees for planting out (m. l.)

—— Prick and plant out the above class of less tender annuals (b. m. l.) some pricked in beds, others planted in the borders, pots, &c. to remain; giving water.

—— These plants may be sowed in a warm border (b. m.)

Bulbous-rooted flowers—in beds, and in full bloom, such as the curious tulips and hyacinths, if defended from rain and the mid-day sun, will continue longer in beauty.

——— Early flowering bulbous roots out of bloom, and the leaves decayed (m. l.) may be taken up where intended, and the off-sets separated, which may be done annually in principal sorts; others may be done once in two or three years; dry and house them for planting again in autumn.

——— Bulbs in water glasses past flowering, cut down the leaves, and plant the roots in the ground.

——— Autumnal flowering bulbs, if their leaves are decayed, may be taken up to separate the off-sets, and to plant again in July and August, for autumn flowering.

Gravel walks—keep always clean from weeds; and sweep and roll every week.

————— Turn and lay them, where required.

Grass—mow once a week or fortnight in dewy mornings or after rain.

—— Turf of grass may be laid, or seed sowed.

Weeds—keep under in all parts, by timely hoeing and hand-weeding.

Water in dry weather—all lately planted young plants, seed beds, and plants in pots; also late planted trees and shrubs.

Early anemones and ranunculuses—done flowering and the leaves decayed, should be taken up, and the off-sets separated.

Auriculas in pots—water often; and those out of bloom move to a shady border.

——— Off-sets of auriculas may be planted.

Balm of Gilead—may be sowed, and cuttings of the stalks planted for more immediate increase.

Candy-tuft—sow in beds, borders or pots, for successional flowering.

Carnations—advancing in flower-stalks, place sticks, and tie the stems thereto neatly; and to those in pots give water frequently.

Cock's-combs—plant some in pots and continue them in the hot-beds till (m. 1.) or next month.

Dahlia—about the middle of the month place out in the borders and clumps for flowering the plants from the greenhouse, guarding them in the evenings from frost.—See page 256.

Egg plant—continue forwarding to a hotbed till (m. 1.) this, or (b.) next month.

Gourds and pompions—plant out (m. 1.) and may sow seeds thereof in borders, or any open situation.

Honeysuckles (climbing)—train to walls or stakes, or to run over arbours.

Hyacinths done flowering—and their leaves decayed, take up, separate the off-sets, and dry and house them to plant again in autumn, &c.

Mignionette—sow more in a bed, border, or pots, to flower in succession.

Marvel of Peru—continue forwarding in the hot-bed till (m. 1.) this month, or (b.) June.

Peas, sweet and scarlet, &c.—sow in beds, borders, or pots, for successional flowering.

———— Stick sweet peas advancing in growth.

Scarlet beans—may sow some, if not done, in the borders, &c. for climbers, or to ascend upon arbours or poles, or lines against walls, &c.—and place sticks to any now davancing in the borders.

Seedling plants and seed beds—water in dry weather.

Sensitive plant—continue under glasses.

Ten-weeks-stocks—plant out in beds, in rows from six to twelve inches asunder; or place by three together in the flower borders and in pots; and sow seed to flower late in summer and autumn.

Tree amaranthus—plant out from hotbeds (m. l.) in borders, pots, &c.

Tuberoses—plant some roots in pots for successional flowering. [See APRIL.]

Tulips—in early kinds out of bloom, break off the seed pods to improve the roots and off-sets in growth, till the leaves decay; they may be taken up (l.)) or next month, where intended. [See *Bulbous Roots.*]

Virgin stock—may be sowed in patches, edgings, and in pots, to flower in succession.

Wall flowers--double bloody, plant slips or cuttings of the young shoots, from three or four to five or six inches in growth, in a shady border or in pots; water at planting and in dry weather.

Shrubberies—keep clean by hoeing and raking, in dry weather.

Shrubs of disorderly growth—may be pruned.

Evergreens—if particularly required, may still be removed with balls (b. m.) and well watered.

—— Prune or trim evergreens, or hedges thereof, where needful.

—— Finish laying evergreens, planting cuttings, and sowing seed thereof.

Flowering shrubs—may be planted, removing with balls, and watering if weather is dry.

WORK IN THE NURSERY.

Having in the preceding spring months finished all principal planting for this season until the following autumn; as likewise the general business of propagation by seeds, layers, cuttings, suckers, and grafting; together with all the necessary work of digging, &c. the business now in the nursery consists principally in keeping the ground and plants clear from weeds, and in giving occasional waterings to new planted young trees, seed beds, pots, &c. and sometimes shading from the sun to som particular sorts of small seedling plants in beds and pots some occasional pruning, and propagating; and some other necessary works of culture.

New planted trees and seed-beds—should be carefully kept clear from weeds now advancing numerously, and occasionally watered in dry weather; as some particular sorts of small tender plants, either evergreen or deciduous, in beds and pots should be shaded from the mid-day sun.

Hoe between the rows of young trees—in dry days, cutting the weeds clean within the surface, and they will soon die.

To new planted trees and shrubs—both in many of the evergreen and some other principal sorts, give moderate watering occasionally in very dry weather.

Mulching the ground—between or about new planted young trees, especially of the more tender or curious kinds, is of great service in preserving the earth moist about the roots.

Shading in hot sunny days—is advisable in several sorts of slender seeding exotics, both of evergreens and others now coming up in beds or pots. Or pots containing seeds or seedling plants of the above, or of others lately transplanted, may be removed to a shady situation, and any young tender plants in hotbeds, should, in their advancing growth have the free air admitted, frequently watered, and occasionally shaded in hot sunny days.

Examine young wall trees—in training against walls, palings, or reed-hedges, to displace fore-right and other ill-placed young shoots of the year.

In new grafted trees—examine if the claying round the graft is defective in any, or fallen off; if it is, let it be immediately renewed.

Pruning—may still be performed where necessary, in any sorts of evergreens particularly.

Sowing—Complete all (b.) for this season, both of trees, shrubs, and herbaceous perennials and biennials.

Propagating evergreens by layers—may still be performed in the young shoots of last year (b. m.) and also by layers of the present year's shoots (m. l.) which will strike root more expeditiously the same season.

Watering in dry weather—most seed-beds, and in any principal sorts of new planted trees, till they have taken good root in a growing state. Also layers and new planted cuttings.

THE GREEN HOUSE.

The green-house exotics continue mostly under shelter till (m. l.) but must have plenty of air daily, frequen waterings, some shifted into larger pots, and others fresh earthed.

Give air—freely now to the green-house plants, by opening the glasses almost fully every warm day, and shutting them in cold nights; but when warm (m. l.) continue them open all night, to inure the plants now by degrees to the full air.

Shift—into larger pots, any green-house plants that are too small, in pots or tubs, generally removing them with the ball of earth entire, and giving water.

—— Or any in a weak sickly state may be shifted entirely into fresh earth, shaking the old ball of earth clear off from the roots, and then prune them, cutting away the outward dry matted fibres, and any decayed part of the larger roots; also prune any weakly and straggling branches and shoots of the head: place the plant directly in a larger pot and entire fresh compost, and water it; then, if there is the convenience of a bark-bed, in which to plunge the pots, it would greatly forward their fresh rooting; but in want thereof, place them in the green-house, &c. occasionally shaded from the sun, and watered.

Fresh earthing—the tops of pots not lately earthed or shifted, will now be necessary and beneficial to the plants.

Watering—will now be frequently required to the green-house plants in general.

Pruning or heading down—the branches or shoots of ill-formed or decayed heads, may be performed (b. m.) in myrtles, geraniums, oranges, lemons, or other woody kinds.

Sickly plants, having dropped their leaves—may have the naked branches pruned, and the plants shifted with balls into other or the same pots, with some fresh earth added and watered; or some may be turned out of their pots, and plunged in the ground to recover.

Finish planting—any kind of green-house plants (b. m.) in smaller or larger pots, &c.

—— Or any oranges, lemons, jasmines, &c. imported from abroad in naked roots, and are obtained for planting, shoold be planted in pots or tubs (b. m.) and plunged into a bark-bed in a glass case, to forward their taking root, and shooting at top; give water and shade occasionally in hot sunny days.

Plant cuttings—of geraniums, myrtles, double nasturtiums, balm of Gilead, foreign heaths, and various other shrubby green-house-plants, principally of the young wood and planted in pots of light mellow earth; give occasional gentle watering, and shade from the full sun. [See JUNE.]

Young seedling oranges, &c.—for stocks, advanced three or four inches, prick separately in small pots.

——— Sow kernels of oranges and lemons for stocks.

Seedling green-house plants—give light waterings; and very small ones shade from the sun in the middle of hot days.

Suckers, cuttings, and layers—may be planted and layed.

Succulent plants—as aloes, &c. water moderately; and any sorts may be shifted, or fresh earthed; and suckers, off-sets, and cuttings may be planted.

Removing into the open air—may be commenced in the hardiest green-house plants (m. l.) if settled weather, as myrtles, oloanders, geraniums, &c.

Young trees—of small growth, one or two years old propagated from cuttings, and growing several or many together in pots, may either be potted off separately, or if thought expedient, be turned out of the pots, and planted (m. l.) in beds in the full ground, and in which they will increase considerably in growth; and in autumn (Sept.) may be transplanted with balls separately into small pots.

Propagate—or raise green-house plants, by seeds, cuttings, suckers, off-sets, and layers, all in pots; and may assist the seeds, cuttings, &c. by placing the pots in a hot-bed, bark-bed, or hot-house.

HOT-HOUSE AND STOVE.

Continue still a proper regular heat in the hot-house by means of a constant bark-bed, and moderate fires in cold evenings and mornings; though fire heat may be entirely discontinued if warm weather.

Bark-beds—support still of a good heat, if not renewed in April, by adding some fresh tan, and forking up the old and new together (b.) [See APRIL.]

Young pines—if not shifted into larger pots in April, it should be done (b.) as soon as possible.

Pines fruiting—should have the bark-bed continued in a lively bottom heat, and give proper waterings.

Fresh air—admit into the hot-house every warm day, but shut close if cold, and always in proper time towards the evening.

Watering—will now be necessary in warm weather, two or three times a week in the different sorts of plants.

Shifting—into large pots, and some fresh earthing, may be performed (b.) to any plants required, removing them with the ball of earth to the roots; but do not shift any of the pines that are now advancing in fruit.

Propagate hot-house plants—by seeds, suckers, cuttings, layers, off-sets, &c. and pines by crowns of the ripe fruit and suckers from the roots; all in pots plunged in the bark-bed.

JUNE.

THE KITCHEN GARDEN.

In the kitchen garden particular attention will now be required, in weeding, thinning, hoeing, and watering many principal crops; and in sowing, pricking out, and transplanting, several successional and main crops, for autumn and winter, &c.

As several early crops—in the natural ground will now be in perfection, and some gathered off for use this month, the ground should be prepared in proper time and sowed or planted with others in succession.

Advanced forward crops—in rows that will soon come off, as early cauliflowers, cabbages, beans, &c. may be inter-cropped with other articles, to gain ground and time in the advancing growths of the intermediate crops, which may be cabbage plants, coleworts, borecole, celery, lettuce, leeks, &c. also occasionally beans, peas, kidney-beans, cucumbers, &c.

Sowing and planting—is still necessary in many successional and several principal crops.

For sowing—the principal sorts are turnips, kidney-beans, lettuce, endive, cucumbers, celery, cabbages, savoys, spinach, radishes, peas, beans, borecole, broccoli, carrots, finochio, turnip-radish, small sallading, coleworts, turnip-cabbage, and a few onions to draw young.

Sowing—give good attention to perform in proper time, in the different crops necessary, as hinted under the respective articles; and if rain happens, it will be an advantageous opportunity for that occasion at this season.

Plant—several principal and successional crops are necessary; as cabbages, coleworts, savoys, borecole, broccoli, leeks, lettuce, beans, endive, and cardoons; also many aromatic and pot herbs, in young seedling plants of the year, slips, cuttings, off-sets, &c.

Prick out various seedlings—from seed-beds, as cabbages, broccoli, cauliflowers, celery, aromatic and sweet herbs. &c. and those thinned out prick, and plant in other compartments.

Stake seed plants—of onions. leeks, &c.

Thin close crops—remaining where sowed; as carrots, parsneps, onions, leeks, lettuce, turnips, spinach, beets turnip-radish, Hamburgh parsley, salsafy, rampions, scorzonera, fennel, borage, marigolds, &c.

Showery weather—take opportunity of, for performing all requisite sowing, pricking out, and planting; for which it is best.

Dry weather—is the most proper, for poling and weeding, particularly for all sorts of hoeing work, as the weeds are soon destroyed.

Hoe—will now be required in many kitchen crops. with a broad hoe between all plants in rows, as cabbages, cauliflowers, beans, peas, kidney-beans, &c. to kill weeds, as well as to loosen the soil and hoe earth to the stems of the plants; also with a small hoe to thin various close crops, as onions, carrots, parsneps, turnips, lettuce, spinach &c. all generally perform in dry weather

Watering—is necessary now to all new planted crops and seed beds, in dry weather, principally in a morning or evening

Hand weed—in due time all small crops in seed beds, and others growing close, where not room for hoeing.

Hotbed ridges—finish making for hand-glass crops of cucumbers and melons; which complete wholly in the first week of the month.

To sow in hotbeds—nothing is now required, except if cold wet weather, may sow cucumbers to plant out for pickles, &c. (See *Cucumbers*.]

To plant in hotbeds—is principally to finish planting the last crop of cucumbers and melons (b,), under hand-glasses, and oiled paper frames.

Aromatic and sweet herb seedlings—prick or plant out from seed-beds; and plant by cuttings and slips, sage, savory, hyssop, mint, tarragon, rue, rosemary, lavender, pennyroyal, chamomile, &c.

Artichokes—will now require occasional hoeing to keep down weeds.

Asparagus—in all stages of growth, should now be well cleared from weeds, by hand weeding or small hoeing, which is the only care they require now.

———— *Gather*—in mature beds, now in full production, according as the shoots advance, two or three to four or five inches high. [See MAY.]

Beans—plant farther successional crops once a fortnight or three weeks, of larger or smaller kinds, or any sorts required; only moderate crops at this season. In planting these late crops of beans at this season, if very hot weather, it would be of advantage first to soak the beans a few hours in water; but where the ground is tolerably moist, this will not be needful.

——— Advancing crops of beans, hoe and draw earth to the plants, and top those in blossom.

Kidney-beans—sow full crops of the best dwarf kinds, for successional production; also a good crop of runners: if hot dry weather, either soak the beans in water, or water the drills previous to sowing, &c.

———— Pole or stick runner kidney-beans; or to those near walls, &c. suspend lines for them to climb upon.

Reed beets—now require hoeing or weeding, and thinning to a foot distance, that the roots may have good room to swell to their proper large size.

Green beet—thin six or eight inches, that the leaves may grow large and thick.

Broccoli and borecole—plant out in moderate crops. two feet and a half asunder; and sow seed (b. m.) to plant out for late crops.

———— Prick out young seedlings of the above.

Cabbages—hoe the advancing crops, draw earth to the stems, and plant out plenty of the spring raised plants for autumn and winter.

———— Sow cabbage seed of the York or sugar-loaf kind, or the Battersea or other quick hearting sorts, for late young cabbages and autumn coleworts.

Cabbages—Prick out young seedling cabbage plants from seed-beds, four inches asunder.

Turnip-cabbage—may now be sowed, to plant for autumn and winter; and plant out the former sowed two feet and a half asunder.

Savoys—plant out main crops in open situations for autumn and winter, two feet asunder, and give water.

Capsicum, love-apples, and basil—finish planting out (b.) into open ground.

Cardoons—plant out in rows five feet asunder, by four and a half in each row.

——— Or, where any were sowed at once in the places where they are to remain, they should now be thinned to one, the strongest plant, in each patch. [See APRIL.]

Carrots and parsneps—finish hoeing, weeding, and thinning the main crops; the former, about four, five, or six inches, and the parsneps eight or ten. [See MAY].

Cauliflowers—planted out in the spring should now be hoed, and earth drawn to the stems.

—— Give water in dry weather, to enlarge the flower heads; and according as the young heads appear, turn down some of the leaves to defend them from the rain and sun.

—— Mark some best early cauliflowers when in full flower heads, to stand for seed, if intended to save any.

—— Prick out the young cauliflowers sowed last month, for the autumn and winter crop. [See JULY, &c.]

Celery—plant out a quantity of the largest, in trenches for blanching; dig the trenches a yard asunder, nine or ten inches to a foot wide, and six or eight inches deep; plant a row in each, four inches asunder, giving water.

—— Begin to earth-up early planted celery.

—— Sow some celery seed (b.) to plant in autumn, for spring crops.

Celeriac, or turnip-rooted celery—plant in drills two feet asunder, and the plants five or six inches apart in each drill; and when of some advanced growth at bottom, earth them up a few inches.

Coleworts—plant a foot asunder, to come in for open greens and small cabbage-hearts, in July and August.

—— Sow also colewort seed of the small quick-hearting cabbage kinds for autumn supply.

Coriander—sow a small portion for succession.

Cucumbers in hotbeds—under frames, must still have the glasses continued over them till (m. l. this, or b. next month); but give plenty of air daily, and frequent waterings; shade in the middle of hot sunny days, and still cover the glasses of nights (b. m.) &c. if cold.

—— But towards (m. l.) if settled dry warm weather, and the plants of strong advanced growth, the frame may be raised at bottom for the runners to come out; or may be occasionally pruned, and wholly retained within the frame.

—— Ridging out cucumbers under hand-glasses, should be wholly finished (b.) [See MAY.] And those of advanced growth in extended runners, should have the hand-glasses raised upon props (b. m. or l), for the runners to come out, trained along in regular order; give necessary waterings; and after (m.), if settled warm weather, the night-covering will not be needful.

—— In this crop it would be of advantage to spread some clean dry straw, or reeds, &c. thinly and regularly on the surface of the beds, for the runners to extend upon, and to preserve the moisture, and the roots of the plants from being parched by the scorching heat of the sun.

—— Young cucumber plants may now be planted in the natural ground, and seed sowed.

Sow natural ground cucumbers—for pickling and other occasions, they will now succeed in the open ground; but finish sowing the main crop (b.), in any compartments of rich earth, beds, borders, &c. to produce in August and September. [See MAY.]

————————————or for the above crop, if a cold or wet season, some may be sowed in clusters in slender hotbed (b.), either defended with a frame or hand-glasses, or mats, &c., and when the plants are come up a few days, or a week or two at most, transplant them in small bunches, with earth to the roots, into the natural ground, and water them.

—— Sow or plant some cucumbers close under a south wall, to have the runners trained thereto.

Endive—sow the first main crops (b. m); the plants of this sowing will not run; the green curly sort for the principal supply, and smaller portions of the white and Batavian sorts.

—— Plant out early endive a foot asunder.

Fennel—thin this year's seedlings, and plant out some a foot asunder, and water well.

Finochio—hoe and earth-up, and sow for a successional crop. [See April and May.]

Garlic and shallots—may take up some young one's for present use, but not wholly till next month or August.

Gourds and pompions—finish planting (b.); give plenty of water in dry weather.

Gourds—finish planting (b.) in borders, &c.

Herbs (aromatic)—prick and plant out seedlings, and plant cuttings and slips of older plants, such as mint, tarragon, sage, &c.

Herbs for drying and distilling—gather; as spearmint, peppermint, pennyroyal, and balm; also chamomile, lavender, and marigold flowers.

Leeks—clear from weeds; and those to remain where sowed, thin six inches asunder.

——— Transplant a full crop of leeks (m. l.) thinning out a quantity from the seed beds; shorten the long weak tops and fibres of the roots, and plant them at nine by six inches distance. [See July.]

Lettuce—thin a foot asunder, and plant out a good crop of all sorts the same distance, watering well.

——— Sow a succession of lettuce seed of different sorts.

——— *Lettuce for seed*—leave or plant out some best sorts of different kinds. [See July.]

Love-apples—finish planting out (b.) in borders, under a south wall, &c. five to ten feet apart, or where any vacant spaces between the trees, plant some close to the wall; the extending branches of the plants may be trained thereto, to have the fruit ripen sooner and more effectually.

Melons—in hotbeds under frames, must have the glasses constantly continued; admit air daily, give moderate waterings, and shade from the mid-day sun; give night covering if cold, but discontinue it (m. l.) if warm settled weather.

Young melon fruit—as they set, place a piece of clean tile under each.

——— Finish ridging out the melon plants under hand-glasses. (b.)

——— Or may now ridge out melons under oiled paper frames, generally successful for good autumn crops.

——— Likewise oiled paper frames may now be placed over melons that were ridged out under hand-glasses last month, &c. previously removing the hand lights. [See MAY.]

Young melon fruit—Hand-glass melons, in which the runners are advanced to fill the glasses, should now be trained out, but cover with mats at night (m. l.) if cold or very wet weather.

Mint—plant a full crop of cuttings of the stalks, as soon as rain falls, six inches asunder.

——— Gather full grown mint to dry.

Nasturtium major—support with sticks, or train to walls, hedges, &c.

Onions—give now a thorough clearing from weeds, and thin those intended for full bulbers, performing it either by hand or small hoeing, thinning them about three four or five inches asunder.

——— Or may leave some for thinning out by degrees in young green onions and small bulbs, leaving a sufficiency at last for a full crop to bulb in large growth.

——— Transplanting of young onions, where crops have failed or are deficient, may be practised occasionally (b. m) if rain or showery moist weather; procuring a quantity of strongish plants of young onions, and preparing beds of rich well dunged ground, plant them in rows five or six, by three or four inches asunder, inserting the root part only a moderate depth, and well watering.

Parsley (large rooted)—thin to six inches apart.

——— Sow common parsley, if before omitted.

Parsneps—hoe and thin to six or eight inches apart.

Peas—sow successional crops of marrowfats, hotspurs, &c., and a crop of Leadman's dwarf: if dry hot weather, first soak the seed, or water the drills.

——— Hoe and stick the advancing crops.

Potatoes—hoe, cut down weeds, and draw earth to the bottom part of the advanced stalks.

——— Early potatoes begin to dig up for use (m. l.)

Pot herbs—plant out seedlings at six inches distance, as thyme, savory, marjoram, hyssop, and sorrel; giving water.

Radishes—may be sowed once a fortnight, for late successional crops, both of the common red and salmon sorts, and of the white and red turnip rooted kinds.

Turnip-radishes—may be sowed, both of the white and red kinds; and thin the last sowed two inches asunder.

Turnip-radishes—Sow also a first crop of black Spanish turnip radish.

Rampions—hoe and thin to six inches.

Sage—plant slips or cuttings of the young shoots in a shady border; take off the under leaves, and plant them down within an inch or two of the top; watering copiously in dry weather.

Scorzonera and salsafy—hoe and thin six inches apart.

Small sallading—sow every week; shade and water in dry hot weather, or sow in shady borders.

Spinach—sow, and hoe and thin advanced young crops. especially those of the broad-cast sowing.

Strawberries—in blossom and setting in fruit, water in dry weather.

——— Plant strawberries by young runner plants of the year, either in beds, &c. to remain, or pricked in a shady border six inches asunder, till September, when they will be advanced to a fine stocky growth for final transplanting.

Tarragon—plant by cutting off the young stalks.

Turnips—sow now a plentiful crop, twice this month, for autumn and winter service; rain for this will be of great advantage.

—— Hoe the last sowed turnips to six or eight inches.

FRUIT GARDEN AND ORCHARD.

Considerable attention is now required in wall and espalier trees in general, in the work of summer pruning and nailing, &c. as the shoots of the year will be numerous, much advanced, and greatly want a proper regulation, by removing the ill-placed, improper, and superfluous, and training in the eligible and useful supply.

But pruning—at this season is required only principally in wall and espalier fruit; seldom in standards.

Summer pruning—of all wall and espalier trees, if not forwarded a little last month, now demands our most early attention, before the trees run into a confused disorder in the numerous shoots of the year, which is of particular importance, both for the advantage of the trees and fruit, as well as to give the trees an agreeable appearance to the sight, when timely trained in regular order.

[illegible]*n summer pruning of peaches, nectarines and apricots*—[illegible] in mind. that as these trees bear mostly on the young wood of a year old, a full supply of the well placed side and leading shoots must be retained in all parts, for next year's bearers; and from which prune away the improper, unnecessary, and superabundant productions. All the retained shoots continue at their full length, as far as the limited bounds of each tree admits, and train them in regularly to the wall. [See MAY.]

Wall-trees—should have the same summer pruning and regulation commenced as soon as convenient, particularly in apricots, peaches, nectarines, and vines; afterwards in cherries, plums, pears, apples, &c. to displace the foreright productions, with other ill-placed, and all very luxuriant and other improper shoots; as also the superfluous and over abundant.

Thin young wall fruit—if any remain too thick or in clusters, of apricots, peaches, nectarines, &c.

Vacancies in wall trees, &c.—furnish by leaving proper shoots; or where deficient, pinch down adjacent young shoots to a few eyes (b. m.) to produce laterals the same season, to supply the vacant spaces.

Blighted wall trees, &c.—the leaves crumpling, and the shoots bunched at top, attend to, as advised in May.

Luxuriant shoots—in wall and espaliers, should be taken out close, where they are of a singularly rank growth, as they draw the nourishment from the others; or where strong shoots or middling luxuriants rise in vacant parts, they may be cut down now to a few lower eyes or buds, from which to produce several moderate shoots the same summer, to furnish the vacancies.

Luxuriant shoots—also in young standard fruit trees, vigorous luxuriants should be displaced.

Foreright shoots—generally displace in all wall and espalier trees, cutting them off close.

Superfluous or overabundant shoots—prune out the most unnecessary in a thinning order.

Regular placed proper shoots—in wall and espalier trees, should in this pruning be retained in due abundance; such as the best placed lateral side shoots, and a principal leader to each branch, where room to run them; preserving the whole at their full length now and all summer.

Nail and train in the regular shoots—in wall and espalier trees as you advance in the pruning, and continue it afterwards occasionally, according as the shoots of the year advance in length.

Budding—may be performed (1.) in apricots, peaches, nectarines, cherries, plums, pears, &c.

Water late planted—fruit trees in dry hot weather.

Cherries, plums, pears, and apples—in wall trees and espaliers, will now require a regulation of pruning and training in the shoots of the year; but as these bear several years on the same branches, no general supply of young wood is wanted in the full trained trees, as in apricots and peaches, &c. only retaining some well placed lateral shoots in the most vacant parts, and the leading terminal shoots to the general branches, where room to extend them within their proper limits; all mostly at their full length, and trained in between the main branches, to choose from in winter pruning, in case they should then be wanted; and be careful to retain a proper supply in all young trees under training, cutting out the foreright and other ill placed and unnecessary shoots; and train the others to the wall, &c. in a regular manner, not shortened.

Cherries now ripe—defend best sorts on walls from birds, with large nets; also occasionally on low standards.

Fig-trees—advanced in strong shoots, prune out principally the foreright, and train in the side and terminal shoots, all at their full length.

Vines—also now require a thorough regulation; they bearing on the young wood only, a general supply of the present shoots must be every where retained, especially all those now in fruit, and others that are strong and well placed, and from which take out all the very weak and other evidently improper and useless shoots; and train the others in close and regularly to the wall, mostly at full length for the present, where there is room to extend them in a regular manner, especially those eligible for future bearers. [See JULY and AUGUST.]

Currants and gooseberries—against walls and in espaliers, divest of the foreright and superabundant shoots, and lay in the others close; also those in standard bushes may have the crowded lateral shoots thinned, to admit the sun and air to the fruit.

Forced fruit trees—against hot walls, &c. will now furnish ripe grapes, apricots, peaches, nectarines, &c. Still continue the glasses, and admit air. Or any forcing houses in which the fruit is gathered, expose the trees to the full air, by having all or most of the glasses fully open.

FLOWER GARDEN AND PLEASURE GROUND.

The general business of the flower garden, pleasure ground, &c. at this season, is to keep all the compartments of walks, lawns, borders, beds, shrubberies, &c. in perfect neat order. Annuals will require transplanting from hotbeds, borders, &c. seedling biennials and perennials pricking out; new planted articles watering; and various other necessary works, as explained under the proper heads.

Border —keep neat by regulating the plants thereof as required; weeding, hoeing, and raking, to have a clean neat appearance.

Climbing plants—give proper support of sticks, poles, and train to walls, arbours, &c.

Running plants—give timely support of sticks, &c.

Stake flower plants—many sorts will now require support, especially those of tall growth, and others with straggling stems, &c.

Flower stalks—plant cuttings of (b. m.), or before they harden much; such as double scarlet lychnis, lychnidea, double rocket, &c. in a shady border.

Decayed flower stalks—cut down.

Cuttings plant—of young flower stalks, of some curious double flowers.

Laying—may be performed (m. l.) in carnations, pinks, cloves, double sweet-williams, and young shoots of curious roses and evergreens.

Seeds (ripe)— of flowers, gather in dry weather.

Flower plants for transplanting—to flower the same year. may be performed in many kinds of annuals; the larger kinds removed with balls; and by the same means may occasionally transplant several sorts of moderate growing perennials and biennials, where required; all well watered.

Plant out seedling flowers—of this year in showery weather, such as transplanting all sorts of annuals from hotbeds, &c. into pots, borders, &c. for flowering this summer; also prick biennials and perennials in beds, to acquire a proper growth for flowering next year.

——— Likewise plant cuttings or slips of double wallflowers, pipings of pinks and carnations, cuttings of flower stalks of curious perennials, &c.

Plant out seedling flowers—also plant slips and cuttings of the young shoots of shrubby evergreens in a shady border.

Biennial seedling plants—of this year should now be pricked out; as Canterbury bells, sweet-williams, French honeysuckles, &c.

Perennial and biennial flowers—of seedling plants raised this year, prick out from the seed-beds into others, at six inches to a foot asunder, to obtain a proper strength for flowering the year following; water at planting, &c.

——— *Sowing perennials and biennials*—may still be performed (b. m.), if omitted before.

Piping—may now be performed to propagate pinks, carnations, and double sweet-williams, by cuttings, &c. of the young shoots; they will now root freely.

——— This mode of propagation is effected in pinks, &c. by planting detached parts of the young shoots of the year, which either pull out of the pipe, or cut off below in proper lengths; pull away the under leaves, and cut each shoot to a firm lower joint, cutting that part even at the end, and shorten the top leaves even; then prick them into a bed, border, or pots of fine earth, an inch or two asunder, inserted down to the leaves, well watered, and shaded from the sun; or, if covered down close with hand-glasses, they will root sooner and more effectively; or may be greatly forwarded if plunged in a hotbed or barkbed.

Sowing—may be performed in several sorts of quick flowering annuals (b. m.) as sweet-peas, candy-tuft, lupines, virgin stocks, ten-weeks stocks, mignionette, convolvulus, &c. to flower late; also perennials and biennials (b. m.) if not done before, to flower next year.

Water all new planted annuals—in dry weather; also those lately sowed, or of small growth, and all sorts in pots.

Annual flower plants—of many sorts will now require final removing or transplanting, where they are to flower; some into pots, others into borders, beds, &c. and some to be sowed; observing generally in transplanting these sorts into the borders, &c. it would be of great advantage to take the opportunity of showery weather, if it happens; otherwise must be constantly watered every day till they take root.

——— *Tender annuals*—raised in hotbeds, as cock's-combs, tricolors, balsams, globe amaranthus, egg plants

&c. remove into the open air, some in pots, others planted into borders, &c. all to remain for flowering the same summer.

Annuals—less tender annuals raised either in moderate hotbeds, or warm borders, pots, &c. should now be finally transplanted where they are to remain; such as the African and French marigolds, with all others of that tribe, planting a full supply in beds or borders, and some in pots, properly watering them.

——— *Hardy annuals*—sowed in the open ground in beds and borders, to remain, will, in all the large sorts, want thinning.

——— *Hardy annuals*—may be sowed, or any sorts transplanted, if rain, in beds, borders, and pots; but sow some also for successional flowering; as sweet peas, candytuft, lupines, convolvulus, mignionette, ten-weeks stocks, virgin stocks, &c. or may also sow any other sorts before omitted. (m. L)

Bulbous roots—done flowering, and the stalks and leaves decayed. should be taken up; at least all such as are intended for removal or lifting, and the off-sets separated; as tulips, hyacinths, jonquils, crocus, narcissus, &c.

—— The more curious sorts of tulips, hyacinths, or any other principal varieties of bulbs, and the tuberous roots of anemones, ranunculusses, &c. may be taken up annually, to separate the off-sets, and to new prepare the beds, for planting again in autumn, &c. the bulbs dried and housed till that season, but the small off-sets planted sooner.

—— But the common bulbs may either be taken up occasionally as above, or remain two or three years without removal.

Off-sets of bulbous roots—that are taken up after their flowering, separate from the main bulbs, and the small ones may be planted soon after in beds, for a year or two, till of a proper size for full flowering; and the larger off-sets may be housed with the parent bulbs to be planted in autumn.

——— Also off-sets of fibrous rooted perennials, of any particularly desirable sorts that now occur, may be taken off and planted directly in a shady border.

Gravel walks—continue always clean weeded, all litter swept off, and rolled once or twice a week: roll well after rain.

Rolling—perform often now to gravel walks, and occasionally to grass.

Grass—should now be often mowed, swept and rolled, and keep the edges always trimmed close and even.

Edgings—keep always in neat order, clipping those of box; and edges of grass trim in close and even.

Box edgings—should now be clipped after rain.

——— Edgings of box may be planted.

Hedges—any sorts grown rough in the summer shoots may be clipped, cutting them close and even, and keeping them gradually narrower towards the top.

——— By clipping hedges now it continues them in neat regular order, and makes them grow close and even: when cut at this season, however, they will require a second and final clipping in August or September.

Water in dry weather—all plants in pots, and others lately planted.

Seedling young plants—give necessary watering.

Plants growing in pots—water frequently in dry weather; and on those done flowering, cut down the decayed stalks, and place them in a shady border.

Anemones and ranunculusses—done flowering, should be taken up when the leaves decay.

Auriculas—continue all those in pots in a shady border [See MAY], and give proper waterings; plant off-sets, and prick out seedling plants.

Carnations—will now require the flower stems to be tied up to sticks; and those in pots want frequent watering.

——— Prick out seedling carnations.

——— Begin to lay carnations (m. l.), and plant piping.

—— *To lay carnations, &c.*—the young lower shoots are the proper layers; pull away the under leaves, and then with a knife cut a small slit or gash upward, at a middle joint on the under side; lay that part in the earth an inch or two deep; peg each down with a small hooked stick, keeping the top upright above the ground, the slit part open, and earth them in a proper depth, as above: thus proceed laying the whole, and give water. They will be rooted in five or six weeks.

Hyacinths—done flowering, and the leaves decaying, is the proper period for taking them up.

Marvel of Peru—remove from hotbeds in pots and plant some without pots into borders, &c.

Mignionette—plant out, and sow some seed in a bed, border, or pots, to remain.

Peas (sweet scented)—sow more in patches, &c. for successional flowering.

Sensitive plant—continue always under glasses.

Stock gilliflowers—this year's seedlings, plant out some finally, while in young growth; and may continue to sow seed (b. m.)

Tuberous roots—done flowering, whose stalks and leaves decay, may be taken up for future replanting, or remain in the pots.

Wall-flowers—double sorts, propagate by planting slips or cuttings of the young shoots of the year, three, four, or five inches long; and prick out seedling plants of walls, flowers raised this year; also may sow seed, (b.)

Pruning—may be performed in any kinds of shrubs to reduce the disorderly growths of the same year.

Evergreens—may be pruned, to regulate disorderly growths, and may now lay and plant cuttings of the young shoots; likewise clip evergreen hedges.

Shrubs—prune from any disorderly productions as they may require.

Shrubberies keep in decent order—by pruning any very rambling disorderly shoots, hoeing down weeds, and raking the ground.

WORK IN THE NURSERY.

In the nursery, at this season, particular care is necessary to destroy weeds by hoeing and hand-weeding; and in watering some late planted young trees, shrubs, and other plants; also in watering seed-beds of small young seedlings of the same year, and all plants in pots; and in giving occasional shade to some small seedling exotics of evergreens, and others of slender growth; attend also to some works of propagation by layers, cuttings and budding; and in pricking out some seedling evergreens of the spring sowing.

Weeds rising numerously—at this season should be diligently destroyed, in all parts between rows of young trees and shrubs, and among all young plants in seed-beds.

Hoeing perform in dry weather—between the nursery rows of trees and shrubs, &c. cutting the weeds clean up by the roots, that they may be effectually killed.

Hand weed seed beds—carefully in good time before the weeds advance considerably.

Watering in dry hot weather—should be continued occasionally, in several sorts of small young seedling trees, shrubs, and other plants in seed-beds, pots, &c. also in some small plants in transplanted beds, and to all plants in pots.

Shading from the sun—in very hot weather in the middle of the day, is advisable in several sorts of small young seedling exotics of slender growth.

Propagation by layers and cuttings—of the young shoots of the same year, may be performed (m. l.) upon any curious or particular sorts of trees and shrubs, or especially in such as discover a reluctancy of rooting in the older wood, as in some hard wooded evergreens; they will emit roots more freely in the young tender shoots of the same season, and give proper waterings.

———*Likewise plant cuttings and slips*—of the young same year's shoots, in several sorts of shrubby evergreens, principally planted in a shady border and watered; also may plant cuttings or slips of the young firm shoots of many sorts of the herbaceous perennials for increase.

Prick out some young seedling evergreens—(l.) particularly of the pine and fir kinds, in cloudy, showery, or moist weather, to thin the seed-beds; but as they must be well watered and occasionally shaded till they take root, the pricking out may not be so conveniently practicable in large quantities at this season, as in the spring.

Plant or prick out seedling herbaceous plants—of perennials and biennials of this year's rising, into nursery beds, in rows six or eight inches asunder, and water them.

Grafted young trees—of the last spring may now have the balls of clay, surrounding the grafted parts removed, and the bandages loosened; as the graft will now be generally well united with the stocks and advancing in growth.

Budding or inoculating—may be commenced towards (l.) especially if a somewhat moist season, to propagate several sorts of fruit trees; beginning first with some of the earliest kinds of pears, apricots, peaches, nectarines, plums, and cherries; as also in some curious ornamental trees and shrubs; observing previously, whether the buds of the shoots and bark of the stocks will readily separate from the wood; if not, defer the business till next month.

Also by budding—may propagate many sorts of curious trees and shrubs; such as the moss rose, Italian jasmine, variegated hollies, and several curious evergreens, &c. that do not propagate freely by other methods.

Stocks designed for budding—should previously have the stems trimmed up for lateral shoots.

Examine grafted and budded trees—of last spring and summer, or before; and clear away all shoots on the stems below the graft and bud shoots.

Attend to young training wall trees, &c.—to divest them of any ill-placed and bad shoots; and train the others in regularly at their full lengths.

May now give the summer clipping—to any sort of nursery hedges.

THE GREEN HOUSE.

The exotics still remaining in the green-house should now be removed into the open air, as soon as settled warm weather; but while they remain give the free air, by continuing the windows open almost day and night.

Remove into the full air—all the myrtles, geraniums, oleanders, &c. (b.); also, if warm weather, the oranges, lemons, and all the other exotics, except the more tender succulent plants; placing them at first in a sheltered situation for a week, then dispose them where required, to ornament the flower garden or pleasure ground, fore-courts, &c.

——— When in the open air, those not fresh earthed at the top of the pots within a month or two past, should now have it done; others wanting larger pots shifted; the plants cleared from decayed leaves and dead wood; and prune or cut down any irregular growths of the head.

The succulent plants—hardier kinds, may also now be placed abroad (b.), such as the American aloes, sedums, &c. but may retain the more tender sorts of African aloes, cereuses, &c. till (m. l.)

Watering—will now be often required to the green-house plants in general.

Shifting into larger pots—with some fresh earth, may still be performed to any of the green-house plants where needful; removing with balls and watering.

Fresh earthing—the tops of pots, or stirring the top earth will prove beneficial and appear neat.

Pruning—may be performed to any shrubby or tree kinds, of green-house exotics; to regulate disorderly shoots and branches; to shorten long, weak, or straggling growths; and cut out any decayed.

Head down—or prune the branches of any decayed, sickly, or naked straggling heads, of myrtles, oranges, lemons, geraniums, &c. to renew them with young wood the same summer.

Oranges, lemons, &c.—should now have the heads and leaves well cleansed; watering also all over the leaves.

——— Young orange stocks for budding, if any are now drawing in hotbeds, give air and water.

——— Small young orange stocks remaining thick in pots, prick in small pots singly; and may sow kernels (b.) to raise a supply of stocks where required.

Propagate green-house plants—by cuttings, suckers, slips, off-sets, and layers.

Plant cuttings—of geraniums, myrtles, &c. under a hand glass, or geraniums will also strike without glasses, but not so soon or effectively.

———— Sow geranium seed in pots.

Myrtles—plant slips of the young shoots three inches long, the under leaves taken off; plant the slips thick in large pots, or in a bed of rich earth, covered down close with hand glasses, and watered; or if the pots are plunged in a hotbed, they will strike much sooner: give occasional shade from the mid-day sun.

Foreign heaths—of which there are a great variety of curious sorts, may now be planted in slips or cuttings; take previously the quite young wood of the year, about one to two or three inches long, cutting off the under leaves, and plant them in middle sized pots of soft light fine earth, one or two inches apart, and the pots covered down with a small hand glass: give gentle watering, and occasional shade from the full sun.

Succulent plants—wanting large pots may be shifted; and suckers, off-sets, and cuttings thereof planted.

Layers—may be made in myrtles and some other shrubby plants.

To seedling young green-house plants—give water, and thin and prick out some in small pots; seed may be sowed; give shade from the hot sun.

HOT-HOUSE AND STOVE.

All the hot-house exotics are to be continued constantly in that apartment, and must still have the bark bed heat supported, but that of fires discontinued; and plants should have air admitted freely every warm day; they will require frequent watering.

The barkbed—renewed in April or last month, by adding some fresh tan, and forking up, will remain now in a proper heat; but if much declined, fork up the bark to the bottom, and replunge the pots of pines, &c.

Fresh air—should now be admitted every warm day, in an increased degree; but shut close in proper time towards the evening.

Watering—is now necessary to the hot-house plants in general two or three times a week.

——— Morning or afternoon is the most proper time to water at this season.

Shifting—may be performed to any particular plants in want of larger pots, removed with balls: adding some fresh earth, and watering.

Propagate hot-house plants—by seed, suckers, cuttings, slips, and off-sets; some by layers, &c.

The pine plants—will now need watering two or three times a week or fortnight, according as the earth in the pots becomes dry; continuing them constantly plunged in the barkbed; and this should be continued in a moderate lively heat.

The fruiting pines—now in full fruit, require a lively bottom heat supported in the barkbed, to forward the fruit in a free growth,

——— Give those plants also moderate waterings once or twice a week, or oftener, if hot weather.

Ripening pine-apples—will now be advancing in some earliest fruit, and some ripe, which, according as they ripen, gather while in perfection, discoverable by their high fragrance; and served to table, reserve the crowns, &c. for planting, if wanted.

The propagation of pines—is only by suckers from the bottom of the old plants, crowns at the top of the ripe fruit, or small suckers at the base; all which, according as they occur or are procured, should, after lying a few days to dry the succulency at bottom a little, be planted each in a small pot, first pulling away some of the under leaves, and cutting even any rugged part at bottom, having the pots filled with rich mellow earth, or of a somewhat light loamy composition; plant one in each pot moderately watered, and then plunge them in a bark-bed, for young successional plants: they will advance to a fruiting state in two years.

—— Thus the succession of pines must be continued annually, as the same individual plants never fruit but once.

JULY.

THE KITCHEN GARDEN.

Now as many principal crops will be arrived to perfection, and some mature crops gathered off, the ground should be prepared for the reception of others in succession, and some main crops for autumn and winter.

Many articles will now require sowing and planting which must be particularly attended to in proper time this month.

Dig vacant ground—cleared from summer crops, ready to sow and plant with others this month.

Dung ground—for some principal autumn and winter crops.

For sowing and planting—prepare ground as it becomes vacant, by dunging and digging; and new-crop while fresh turned up, especially in sowing.

——— Or the planting some particular articles may be performed between other crops in wide rows of advanced growth, to gain time and ground; as cabbages, coleworts, savoys, planted between wide rows of advanced beans, cauliflowers or kidney-beans; and may plant endive, lettuce, or coleworts, between celery trenches: and celery between rows of early cabbages, cauliflowers, &c. soon coming off the ground.

In the general sowing and planting at this season, it is of great advantage to take opportunity of rain.

Showery weather—take opportunity to sow and plant all requisite crops.

Sowing—be careful to perform in the proper crops necessary to sow at this season, as turnips, coleworts, lettuce, endive, kidney-beans, spinach, carrots, cabbages, radishes, peas, turnip-radish, black Spanish radish, &c.

Planting—is now requisite in many full crops for autumn and winter, &c. and some for autumnal succession, as savoys, broccoli, coleworts, borecole, cabbbage, celery, endive; leeks, lettuce, some late beans for production in August and September, &c. cauliflowers for autumn and winter; and to prick out several seedling plants, of cabbages, coleworts, broccoli, celery, borecole, and various aromatic and other pot-herbs.

Plant all necessary crops—in proper time; and if rain falls, do not omit that opportunity, in planting cabbage, savoys, broccoli, borecole, coleworts, celery, endive, lettuce, cardoons, winter cauliflowers, late beans, &c.

Prick out—young broccoli, cabbage, savoys, coleworts, and celery, three or four inches asunder, to obtain strength for final transplanting next month.

Earth-up plants to blanch—as celery, cardoons, alexanders, finochio, celeriac, &c.

Thinning—attend to in proper time in all remaining close crops that are usually thinned; as onions, leeks, lettuce, turnips, carrots, radishes, beets, spinach, parsneps, &c.

Shading—will prove beneficial in dry hot weather, to seed-beds of small seeds not come up, with mats or straw litter.

Seeds ripening—guard from birds, particularly of cabbage, broccoli, savoy, borecole, turnip; and gather all sorts according as they ripen, when beginning to harden.

Hand-weeding—is required in many close crops, and in seed-beds; and in others where not room for hoeing.

Weeds destroy—timely in all parts, by hand-weeding and hoeing; performingthe hoeing in dry weather between all plants that stand distant in rows, &c. to admit the hoe, cutting up the weeds clean within the surface of the ground, that they may soon effectually die.

Hoe in dry weather—between all plants in rows, or that stand apart, to kill weeds and to loosen the ground about the plants; also hoe earth to the stems of several sorts, as young peas, beans, cabbages, cauliflowers, broccoli, borecole, savoys, celery, kidney beans, &c.

Watering—is necessary to all new-planted crops, and in dry weather to seed-beds of small seeds and plants.

——— No hotbed sowing is required at this season.

Alexanders.—earth-up to blanch.

Aromatic and sweet herbs—finish pricking out from seed-beds

——— Gather aromatics for drying and distilling, as mint, balm, pennyroyal, peppermint, tarragon, sweet marjoram, sage, savory, pot marjoram, hyssop, &c.

——— Also gather the flowers of marigolds, chamomile, and lavender to dry, &c.

Herbs for drying and distilling—should now be gathered for the principal supply.

Distilling herbs gather—of peppermint, spearmint, pennyroyal, lavender, &c. all which are in best perfection when advanced for flowering.

Drying herbs likewise gather.—such as mint, balm, sweet marjoram, pennyroyal, lavender spikes, sage tops, hyssop, &c. dried in a shady place, and housed.

Artichokes—will now be advancing in heads for gathering; or may also gather some of the small side suckers for use and the main heads will grow larger.

Asparagus—should now terminate the general cutting or gathering for the season, if not done in June, that the roots may not be weakened detrimentally to their future production, cleaning the beds now thoroughly from weeds, and the plants wholly permitted to run up in stalks till October, &c.

——— old beds in production may still be gathered (b.) but soon after discontinued for the season; and the whole permitted to shoot up in stalks till October, then to be cut down, and the beds have the winter dressing. [See OCTOBER.]

——— All asparagus beds should be now well cleared from weeds.

Beans—plant a moderate crop for late production in autumn, some mazagans, a larger portion of white blossoms, long-pods, and a few Windsors, (b. m.); if dry weather, soak the beans in water a few hours before planting.

——— Leave some beans of different sorts now in production, for seed.

Kidney-beans—sow a principal late crop of the dwarf kinds (b.), and more (m. l.) : and may also sow a small last crop of runners (b).; observing now, if dry hot weather, either to water the drills or soak the beans in soft water a few hours before sowing.

Kidney-beans—Hoe and draw earth to advancing young crops of kidney-beans, and place sticks to runners.

Beet (red)—finish thining (b.) and clearing from weeds.

—— Green and white beet may be sowed (b.)

Borage—may be sowed (m. l.) to obtain a production of its young leaves in autumn, &c.

Borecole—finish planting the main winter crops (b. m. l.) a plentiful supply, in rows two feet asunder, and prick out the last raised seedling plants.

Broccoli—plant out now full crops of the purple and cauliflower white, in rich ground, at two feet and a half distance.

—— Prick out broccoli seedling plants sowed last month, for final transplanting in August or September.

Cabbages in young plants—should now be planted out in good plenty, both for young autumn and winter cabbaging, and for cabbage coleworts.

—— Hoe former planted advancing young cabbages, and draw earth to the stems.

—— Prick out the last sowed.

—— Sow cabbage seed of the smaller quick-heading kinds, for autumn and winter coleworts, and young cabbages.

Savoys—plant out full crops in the most open situations (b. m. l.) in rows at two feet to two and a half asunder, that they may have proper time and good scope of room to form full cabbaged heads of a large growth for winter being the most useful table cabbage in that season.

Carrots—finish thinning the main crop. [See JUNE.]

—— Sow a small or moderate crop of carrots, (b. m.) to draw young in autumn, &c.

Cauliflowers sowed in May—plant out finally (m. l.) for the Michaelmas crop in October, November, &c. and will sometimes continue in tolerable heads till Christmas. [See MAY, JUNE, OCTOBER, &c.]

Celeriac or turnip-rooted celery—plant in drills two feet asunder, by six inches in the row.

Celery—plant now full crops in trenches, for autumn and winter supply.

—— Earth-up early planted celery.

—— Prick out more from seed-beds.

—— Early planted celery blanched six or eight inches, may begin taking up for use.

Chamomile flowers—are now in perfection to gather.

Chervill—may be sowed (m. l.) for autumn use, for soups, sallads, &c. always to remain where sowed, and does not require thinning.

Coleworts—plant out, and sow full crops for autumn and winter, both to use in young open greens and smal cabbaged hearts.

Coriander—sow a successional small crop.

Cucumbers under frames—give plenty of free air and supplies of water; and some may have full scope to run, by raising the frame at bottom, and the glasses taken off; others may be confined still wholly within the frame, and continue defended with the glasses, in case of bad weather.

—— *Under hand glasses should*—have liberty to extend, having the glasses raised upon props; and, as observed in June, it would be beneficial (b.) to spread some clean wheat straw, or dry reeds, thinly and regularly on the surface of the bed, to extend the runners thereon; also for preserving the moisture in the earth, and the roots of the plants more effectually from the scorching heat of the sun ; it likewise keeps the fruit from spotting.

———— Night covering is not now required.

———— Water cucumbers plentifully in dry hot weather every day or two, in a morning or afternoon.

———— *Natural ground cucumbers*—for picklers and other purposes, should be thinned (b.) to four or five in each hole; earth-up the stems, and press them gently asunder in different directions ; give plenty of water in dry weather.

———— Stick some poles for the plants to climb upon, to elevate the fruit from the ground, and to preserve it clean from spotting by the moisture of the earth.

———— Or may also train the runners of some against walls, where sowed or planted near enough.

Dill—may be gathered for use the leaves and top seed-umbels, to use in pickling, &c.

Endive—plant the first main crops for autumn and winter of the green curled, and smaller portions of the white and Batavian kinds, twelve to fifteen inches asunder; and water them.

———— Sow more endive (b. m. l.) for principal and late winter crops.

Finochio—earth up to blanch, and sow the last crop in drills two feet asunder; observing, that as this plant after attaining full growth soon runs to seed, some must be sowed every month from April to July, for succession.

Garlic and shallots.—may be taken up for present use; and when arrived to full growth, and the leaves turning yellow, should be taken up wholly; then dried and housed [See AUGUST.]

Gourds and pompions—water plentiful in dry weather.

——— now in small young green fruit, may be gathered, to boil, stew, pickle, &c.

Horse-radish—in old plantations, draw out the small suckers between the main stools.

Lavender—gather the flower spikes.

Leeks—clear from weeds, and thin those intended to remain where sowed.

—— Likewise plant out a full crop of leeks (b. m.); shorten the tops of the leaves and the long root fibres, then plant by dibble in rows at nine by six inches distance, inserting them a moderate length, not too deep in the ground, and well water them.

Lettuce—plant out different sorts, twelve to fifteen inches asunder; give water.

—— Thin lettuces remaining where sowed.

—— Sow different sorts of lettuce seed (b. m. l.) for autumn.

—— leave some best full plants of different sorts, particularly such as acquire a full cabbaged growth before they run up to stalk; otherwise the seed is not to be depended on to produce good full plants in return.

Love-apple plants—train to walls or stakes.

Marigold flowers—gather and dry for keeping.

Marjoram (sweet or knotted)—gather some when advancing to flower, for drying.

Melons—in frames, continue still defended with the glasses, especially when rain, and every night; admit plenty of free air every day; and give supplies of water moderately.

—— *under hand-glasses*—should have the glasses raised three inches upon props (b.) if not done, for the runners to extend from under, conducting them out in regular order, in different directions; continue the glasses constantly over the heads or main stems of the plants, and when heavy rains, defend the whole with large thick mats, canvas, &c. or frames and glasses placed over; give water in dry weather.

under oiled paper frames—should have those shelters continued constantly day and night, giving proper air daily, and necessary waterings.

Melons—cut or gather these ripening while in full perfection, the maturity being discoverable in some sorts by their changing yellowish and emitting a fragrant odour, and by the thick end of the foot stalk at the place of its union with the base of the fruit, cracking and separating, as it were, in that part: and that, agreeable to these tokens, should be cut before it becomes too mellow or dead ripe.

Mint—may still be planted, by cuttings of the stalks (b.) or also by rooted off-set plants: all well watered.

Mushroom beds—continue constantly covered with straw; or may admit a moderate warm shower.

——— Begin making mushroom beds (m. l.) for autumn production. [See SEPTEMBER.]

——— collect proper supplies of spawn, from old hotbeds, horse stable dunghills of several months lying, horse rides, and horse mill tracts under cover, dry dungy composts, in all of which the spawn casually occurs, which is of a white fibrous nature, in cakes or lumps of the dry rotted dung; which gather in said lumps, and deposit under cover till wanted; covering close with straw or garden mats. [See SEPTEMBER.]

Onions—keep clear from weeds, and if any remain too thick, thin them to a proper distance. [See JUNE.]

——Sow onion seed (b. m.) to draw young in Autumn for sallads.

Parsley—may be sowed, if before omitted,—and thin the large-rooted kind six inches asunder.

Parsneps—where any still remain too close, should now finish all necessary thinning thereof. (b.)

Peas—sow the last crops (b. and l.) of hot-spurs, some Leadman's dwarf, or other dwarf kinds, and marrowfats; and may also sow rouncivals, and egg peas, &c. observing, if dry hot weather, first to soak the peas in water a few hours, or water the drills.

—— hoe advancing young crops of peas, and stick those intended.

—— Leave some peas now in full production for seed.

Peppermint—for distilling, gather when beginning to flower.

Potatoes—may be digged up for use, in small portions as wanted.

Pot-herbs—prick or plant out from seed beds, as thyme, marjoram, savory, hyssop, sorrel, &c. in showery weather.

Radishes—sow (b. m. l.) both of the short top, salmon, and turnip-radish, for an autumn crop next month, &c.

Turnip radish—sow some small white and red sorts for autumn, and black Spanish for autumn and winter.

Rampion—the roots will now be proper for use, (m. l.)

Salsafy, scorzonera, and Hamburgh parsley—thin if too close, and clear from weeds.

Small sallading—sow every week in a shady border, otherwise shaded and watered in dry weather.

Spinach—the round leaved sort may be sowed for succession next month, &c. hoe and thin the last sowed.

—— Towards (l.) may sow some prickly seeded spinach for autumn and winter. [See AUGUST.]

Strawberries—may be planted in young runner plants, or side off-sets, either in a shady border till September, or where they are to remain. [See JUNE and SEPTEMBER.]

Turnips—sow a plentiful crop for autumn and winter (b. m.), and some also towards (l.) ; if rain falls, it will be of particular advantage for sowing.

——— Hoe and thin advancing young crops of turnips, having leaves an inch broad ; thinning them to six or eight inches distance.

French turnip—may be sowed (b. m.) for autumn and winter, &c. it has a smallish oblong root, boils exceedingly tender and good flavoured, and is much esteemed to boil in broth, soups, and other culinary occasions.

FRUIT GARDEN AND ORCHARD.

At this season tne most diligent attention is still necessary in the operation of summer pruning and nailing wall and espalier trees, both in continuance of the former regulation, and more particularly in that wholly omitted before, to regulate the numerous shoots of the year, which in the latter case will now be grown into a confused disorder.

Budding—may now be commenced in general (m. l.) in peaches, apricots, nectarines, plums, cherries, pears, &c.

Stocks for budding, &c.—clear from lateral shoots, preparatory to that operation.

Summer pruning—where commenced in May or June, and the improper and superfluous shoots displaced will not be so considerable at this time ; and the principal business required is to fasten in the retained regular shoots to the walls, &c. according as they advance in growth, and to cut out useless after-shoots.

Summer pruning—but where the summer pruning of wall and espalier trees is omitted till this time, great confusion must consequently occur in the numerous shoots of the year, and should now be regulated with the utmost attention and expedition, that the whole may be completed early in the month.

——— in wall trees in general the pruning and training should now be finished as soon as possible, both for the regularity and benefit of the trees, and prosperity of the fruit; such as in apricots, peaches, nectarines, plums, cherries, &c. cutting out the foreright and other ill-placed luxuriant shoots, and thinning the superfluous, &c. agreeable to the directions in June, retaining abundance of the well placed proper shoots at their full length, and nailing them close and regularly to the wall, going over them every week or fortnight after, to prune out useless after-shoots, and to nail in the regular supply close, according as they advance in length, and such as casually detach from their places.

Espalier trees—prune and regulate, as advised for wall trees.

Protect ripe wall fruit—from birds, wasps, &c. the former by nets placed over the trees; the latter by phials of sweetened water, or other liquor, to decoy and drown them therein.

Wall fruit thin—where any still remain too thick, particularly apricots, peaches, nectarines, and large plums, &c.

Blighted wall trees, &c.—attend to as advised last month.

To vines give good attention—they still shooting numerously and strong; prune out the improper, useless, and unnecessary shoots, as directed in May and June, retaining all those in fruit, with others that are strong and well placed, according to the directions in August; and nail the whole in close to the wall in regular order.

Fig trees—now advanced in numerous shoots, prune out the foreright and other irregular and very long strong growths, and nail in all the others close, not shortened.

Walnuts (green)—are now proper to gather for pickling, before the internal parts begin to shell or harden.

Cherries (ripe)—continue to defend from birds with nets, particularly best sorts on walls, &c.

Currants and gooseberries against walls, &c.—prune out the superfluous, crowding, and irregular shoots, and nail the others in close, to admit the benefit of the sun to the fruit; likewise in standard bushes.

——— Ripe currants net some to keep off birds; others, in the full sun, may be shaded with mats, to continue the fruit longer in perfection.

Raspberries—clear from straggling suckers between the rows, to admit the sun and air to the fruit now ripening.

FLOWER GARDEN AND PLEASURE GROUND.

The flower garden and pleasure ground, &c. having been furnished in the preceding months with the requisite articles, the principal work now consists chiefly in keeping all the different compartments in proper order, in the neatest manner, and to give any necessary regulation to the flowers, plants, shrubs, &c.

All compartments—of borders, beds, shrubberies, lawns, walks, &c. keep in the neatest order; flower plants of irregular rude growth trim as required, and stick those wanting support; clip edgings and hedges; prune disorderly shrubs, &c. mow and sweep grass; weed, sweep, and roll gravel. Dig vacant flower beds.

Box edgings—not having had the summer clipping, should now have it performed in general, and new edgings may still be planted, and well watered.

————— The clipping of box edgings, &c. is most advisable after rain or in moist weather, as when cut in very dry hot weather, it is apt to parch, and make them change of a disagreeable foxy colour.

Thrift edgings—done flowering, cut off the decayed flowers, and cut the sides even if irregular.

Clipping—will now be required in all sorts of hedges, cutting them close and even at the sides and top.

Pruning—may be performed to any kind of shrubs and plants, to reduce disorderly growths.

Budding—may be performed in any curious roses, Italian jasmines, and other curious shrubs and trees, whereby to propagate any choice or desirable sorts.

Layers—now make layers of all curious carnations, also of cloves, double scarlet and mule sweet-williams, and capital varieties of pinks. [See the directions of June for the method of laying.]

Layers—Likewise may lay young shoots of curious evergreens, roses, &c.

Piping—should now be principally finished in pinks and carnations, by planting cuttings of the young bottom shoots. [See JUNE.]

——— And any early-planted pipings, if now well rooted, and advanced in top growth, prick out into beds or borders; and water well.

Flowering plants—advancing in tall growth, and climbers, support with sticks in a neat manner.

——————— Where flowering plants of rambling growth are very irregular, trim and regulate them as required.

Flower plants required for transplanting—to flower the same year, may be performed in most of the transplanting annuals; remove with balls of earth to the roots, especially large plants, giving water; also some fibrous rooted perennials or biennials, that are of moderate or middling growth, either such as are beginning to flower, or that are advancing to that state, if transplanted with good balls, and well watered will succeed.

Planting—perform, in pricking out seedling perennials and biennials; or occasionally plant larger or full flowering plants required in vacant parts of flower borders, &c. or in pots, removed with balls; also prick out early pipings of pinks and carnations, and occasionally plant slips, off-sets, and cuttings of young flower stems and shoots of any curious flowering perennials for increase; likewise replant small off sets of bulbs; finish planting out any remaining annuals, and transplant others where required in vacant places.

Save seeds—of annuals and biennials, and of any perennials required that are ripe.

Seedling perennials and biennials—finish pricking out; and water well.

Double flowered perennials—of any curious kinds, propagate some by cuttings of the flower stalks, (b.); others by slips and cuttings of young shoots, and some by bottom off-sets, as they yield no seed.

Sowing—is now practised only occasionally in some few articles of quick flowering hardy annuals, to flower in autumn; or sometimes in auriculas, polyanthusses, and bulbous roots; and occasionally in any other perennials and biennials (b.) if before omitted.

Annual flowers—having been all principally sowed, planted, and removed to the places where they are to flower, now only require occasional waterings, especially those in pots; and some to be supported with sticks.

———— Give frequent waterings in dry weather, to annuals in pots and borders.

———— Support with sticks all annuals of trailing or weakly upright growth, and climbers.

———— Sowing hardy annuals, to flower in autumn, may be performed (b.) in any quick flowering kinds mentioned last month; as lupines, sweet peas, mignionette, ten-weeks-stocks, candy-tuft, virgin stock, &c.

Hardy annuals—thin the patches of large kinds, where remaining too close.

Bulbous roots—lately done flowering, and the leaves decayed, should be taken up where intended, and the offsets separated, before they commence a fresh growth.

———— The bulbous roots of lilies, martagons, and others of the scaly-rooted tribe, lately done flowering, and the leaves, &c. decayed, may be taken up, and the off-sets separated and planted again soon, as these sorts will not keep long out of the ground, so well as the solid and tunicated bulbs.

——— Seeds of bulbous roots may be sowed.

Autumnal flowering bulbs—may now be planted (m. l.), to blow in September and October.

——— *Beds in which bulbous roots have flowered*—and the roots are taken up, should be digged to improve the soil for planting with bulbs, &c. in autumn.

——— *Seedling bulbs*—of two years old, take up when the leaves decay, and plant again in beds three inches asunder.

Off-sets—of bulbous roots, and any curious fibrous rooted perennials that occur, should be planted.

Gravel walks—roll every week once or twice; and commonly every Saturday, especially after rain, or if very dry, water before rolling.

Grass lawns, &c.—still keep regularly cut close and even, by timely mowing once a week or fortnight, and rolled.

Watering—perform in dry weather to pots, new-planted seedlings, layers, pipings, cuttings, &c.

Dry weather—water all plants in pots every day; also give proper waterings to all newly planted articles, and to layers, cuttings, seed beds, &c.

Showery weather—is proper for all pricking out, planting and sowing; also for cutting box edgings, evergreen hedges, and rolling gravel walks, &c.

Hedges—of all sorts should now be clipped, as they will now be grown rough in the numerous shoots of the year. [See June and August.]

Auriculas and polyanthusses—have young seedlings pricked out, and off-sets from old roots planted into shady borders.

———— Old auriculas in pots may be fresh potted, (m. l.) See August.]

Carnations—should have the flower stalks tied up neatly to straight sticks; and the stage carnations in pots, place on the stage or stand where intended (b. m.) to remain for flowering; the pots often watered.

———— May continue laying carnations, and planting pipings. [See June.]

———— Prick out carnation seedlings.

Colchicum and autumnal crocus—may now be planted (m. l.) to flower in autumn; also the autumnal narcissus, Guernsey lily, &c. [See August.]

Hearts-ease—large Dutch, plant slips and off-sets thereof (m. l.), as the seed is not always to be depended on, at least not with certainty of producing the same; give water abundantly.

Honeysuckles and jasmines—running kinds, train up to walls, arbours, and stakes; and prune away irregular and superabundant shoots.

Lilies and martagons—done flowering, (m. l.) and the stalks decayed, may be taken up, either for removal, or where in large bunches to be parted, or the off-sets separated; and either planted again directly or soon after, especially the off-sets; the large bulbs also, soon in autumn, as they don't keep well. [See August,]

Mignionette and ten-weeks-stocks—may still be sowed, to flower late.

Passion flower—prune out the irregular and superfluous shoots of the year, and train the others to the wall, &c. in regular order for flowering.

Stock gilliflowers—of the Brompton, queen sorts, prick out from seed-beds, into other beds or borders; also plant out some finally into borders, beds, pots, &c. to remain;

these plants having naked woody roots, do not succeed well by after transplanting, when of large growth.

Ten-week-stocks—may be sowed to flower late, and in winter.

Wall-flowers—plant slips of the double bloody (b.)

———— Prick out all seedling walls. [See JUNE.]

Shrubberies keep in good order—pruning out any rambling rude shoots and decayed flower stalks; and hoe and clear off weeds.

Evergreens—may be pruned, where they advance in any disorderly productions.

———— Clip evergreen hedges.

———— Seedling evergreens thin in showery weather, and pricked in other beds, in rows, six inches asunder; more particularly firs and pines: giving occasional watering and shading from the sun in dry hot weather.

———— Or larger evergreens may be transplanted with balls, if occasionally wanted.

WORK IN THE NURSERY

The nursery business in this month comprises the continuation of several works of the two former, May, and June, consisting of hoeing, weeding, watering, and some occasional shading, propagating by budding, layers, cuttings, some transplanting and pricking out, with some occasional works of pruning, training, &c.

Weeding and watering—will now demand particular attention; for as weeds generally at this season continue advancing considerably in all parts, they should be diligently kept under, and in dry weather many sorts of small young plants will need frequent watering; and is particularly necessary to all plants in pots. Seedling trees and shrubs, and others of slender growth; also to all plants in pots, and to any seedling plants lately planted, or pricked out, as likewise to newly planted cuttings, slips, layers, &c.

Hoeing—perform in dry weather, to destroy weeds between rows of young trees, and in all compartments where weeds are advancing in considerable growth, and where the hoe can be introduced, cutting them up radically, that they may not grow again, and that the ground may thereby appear in a clean neat order; for, by giving a proper hoeing, and eradicating the weeds effectually, you loosen and freshen the surface beneficially to the growth of the plants, and in seed beds of small young plants cf close growth.

Hand-weed—where the hoe is not admissible, before the weeds increase much in size to spread, entangle with, and injure the plants, now in their infant state.

Shading from the mid-day sun—in hot dry weather will be proper, occasionally to some slender seedling exotics, and to any seedling evergreens lately pricked out, &c.

May now prick out some young seedling evergreens—particularly such as pines, firs, cedars, &c. if a showery or moist season; and if succeeded by dry weather, must be frequently watered, and shaded occasionally in hot sunny days.

Finish pricking out seedling herbaceous plants—of fibrous rooted perennials and biennials into beds and borders, and give water.

Pruning perform—where necessary, in trees and shrubs to regulate or displace any rude, rambling, or other disorderly summer shoots.

Prune or trim evergreens—according as particular sorts may require, either to reduce casual, rank, or any disorderly or rude rambling shoots of the year, or to trim or train any in hedges, or for particular occasions.

Look over young fruit trees—cut away all shoots from the stems, and any very luxuriant and rude rambling shoots of the head.

——— *Likewise examine young wall trees*—and cut out close very rank and ill placed shoots of the present summer, together with all the shoots from the stems, and train in the regular shoots of the head to the wall, &c. in proper order, at their full length.

Budding or inoculating—may now be performed in general, (m. l.) in all sorts of fruit trees that are usually propagated by that method; as peaches, nectarines, apricots, pears, plumbs, cherries, &c. as also in any curious, scarce, or particular sorts of ornamental trees, shrubs, &c. this and the beginning of next month, it being the proper season for that business.

——*Trim stocks*—intended for budding this season.

- - *Budded trees of last year*—look over occasionally those now advancing in the first shoots, in order to displace all shoots produced from the stems below the bud shoot.

Propagate by layers, cuttings and slips—of the young shoots of the year, principally in evergreens; or by layers, both in evergreens and deciduous trees and shrubs; by either of which methods, many sorts will root more freely in the tender young shoots of the summer than in the oldest wood.

Summer clip hedges—if not done in June.

THE GREEN HOUSE.

Any green-house exotics of tender succulent plants, still remaining in the house, remove now into the open air; or if continued longer in the green-house, have the full air admitted day and night; such as cereuses, African aloes, torch thistles, ficoides, &c.

Water—will now be necessary to all green-house plants every day or two in dry weather.

Fresh earth—or loosen the earth in the tops of the pots occasionally, especially where the surface appears crusted or binding.

Plant slips and cuttings—of myrtles, geraniums, heaths, shrubby asters, tansey, double nasturtiums, balm of Gilead, &c. and cuttings of succulent plants under hand glasses.

Layers make—of lower young branches and shoots of shrubby green-house plants, (*b*.)

Succulent plants—propagate by suckers, off-sets, and cuttings; first dry in some of the moisture, by placing them in the air two or three days.

Propagate—different sorts of green-house exotics, by cuttings, slips, off-sets, suckers, layers, and budding.

Seedling green-house plants—when two, three, or four inches high, prick singly in small pots, or several together in large pots, till advanced in growth; give water, and occasional shading from the full sun.

All green-house plants—supply with necessary waterings in hot weather; sometimes watering all over the heads, to wash off dust, &c. and to refresh them; detach all decayed leaves and shoots; or any advancing in irregular growth may be pruned as required.

Oranges and lemons—give good attention to water in dry weather; if the blossom is very thick, on those in flower, some may be thinned, to strengthen the growth of the other; and those thinned off, serve for perfumery, or orange-flower water, &c.

——————— To any orange trees, &c. planted his year, and plunged in bark-beds, to strike them more expeditiously or effectually, or seedling oranges in hotbeds, to draw up tall for stocks, give now a large admission of free air and frequent waterings, and occasionally shade them from the hot sun: and young seedling oranges, when three or four inches high, prick singly in small pots; watered and shaded.

———— *Budding*—may be performed to oranges, lemons. &c. (m. l.)

HOT-HOUSE AND STOVE.

The hot-house plants are still principally to remain in this preservatory, and the bark-bed heat continued, especially in pineries, but no fires; they will now require a large admission of fresh air, and frequent waterings; or in hot-houses having many different sorts of exotics much crowded, some may now (b. m); be removed into a green-house or glass case, with the sashes open in front, there to remain five or six weeks, during the hotter part of the season.

The bark-bed—in the pineries, &c. must still be continued in a moderate heat; it will require a renewal next month.

Plant crowns and suckers of pines—obtained from the ripe fruit and old plants, according as they occur, each planted in a small pot, and plunged in a bark-bed or other hot-bed, under glasses; and in two years they become fruiting plants.

——— *the pines*—must have frequent watering, both those advancing in fruit and the successional plants of all degrees of growth, applying the water with moderation, to preserve the earth in a middling degree moist: and always more moderately in plants with fruit ripening, than the others.

————*Shifting succession pines*—into larger pots, may be commenced (l.); but next month is more eligible for general shifting. [See AUGUST.]

Air—should now be admitted freely, and the glasses opened considerably in the heat of sunny days, but shut close towards evening.

Watering—demands good attention now, to the hothouse plants in general.

All exotics of the hot-house—keep clean from any sort of foulness they are apt to contract, washing it off as occasion requires: pick or cut off decayed leaves, and dead or distempered shoots &c. and extirpate insects in the best manner possible, by cleaning and washing the leaves, &c. and occasionally fumigating with tobacco, strewing tobacco dust, &c. over: but in the pine plants particularly, the utmost care is occasionally required, to keep them clean from the peculiar small vermin that often greatly annoy these exotics.

Any plants in a weak sickly state—put into new pots with some fresh earth, and plunge in a bark-bed.

Propagate hothouse plants—by suckers, cuttings, offsets, crowns, layers, &c.

In the propagation of the different hot-house plants—by the several methods of cuttings, slips, crowns, suckers, offsets, layers, &c. of other plants, being generally all planted in pots, give the assistance of the bark-bed, &c. plunging the pots therein; give water and shade occasionally.

AUGUST.

THE KITCHEN GARDEN.

This is now a principal season for sowing and planting several autumnal and winter crops, and for next spring and summer; to which particular attention is required, as hereafter explained in the respective sorts; they will not admit of delay.

Prepare the ground—as cleared off, by dunging and digging, for the reception of several principal crops requisite to put in at this season.

As soon as the ground is digged—if dry weather, sow directly while the earth is fresh turned up, and the surface a little moist, which if a dry season, will be of particular advantage in sowing.

Weeds—now advancing numerously in the autumn growth, should be effectually destroyed, before they spread or seed.

Hoe—to kill weeds, and to loosen the ground between rows of advancing cabbage, coleworts, cauliflowers, savoys, broccoli, borecole, celery, endive, lettuce, leeks, cardoons, peas, beans, finochio, kidney-beans, &c. and draw earth to the stems of the stalky kinds.

Hoe—Also hoe and thin seed beds of turnips, radishes, spinach, lettuce, turnip-radishes, &c.

Sowing—in the necessary crops of the season, attend to in proper time; some for the end of autumn, others principally for winter and spring, and early crops next summer; such as cabbage, coleworts, cauliflowers, lettuces, onions, spinach, turnips, radishes, carrots, corn-sallad, chervil, &c. [See the different articles.]

Plant—All necessary crops for autumn and winter, or next spring and summer crops, in proper time of celery, endive, cabbage, coleworts, savoys, lettuces, broccoli, borecole, and leeks.

Prick out—seedling celery, cabbages, coleworts, &c. to strengthen for final transplanting.

Earth-up plants to blanch—celery, celeriac, finochio, cardoons, &c.

In rainy or showery weather—take opportunity to sow, prick, and plant all necessary crops of the season; and to plant slips, off-sets, &c. of aromatic and other pot-herbs.

Seed-beds of small seeds—lately sowed, water in dry weather; and shade those of cauliflowers, &c. from the mid-day sun.

Seeds ripening—now in many sorts of plants, gather as they attain perfection.

Pickling articles—will now be proper to gather in various sorts, as cucumbers, kidney-beans, nasturtium berries, radish pods, love-apples, capsicums, small onions, artichoke bottoms, &c.

Watering in dry weather—is required for all newly pricked out young plants, and others lately planted; to cucumbers often; and to seed-beds.

Alexanders and angelica—may be sowed to come in sooner next year, than those of the following spring sowing.

Aromatic herbs—propagate by parting roots, as balm, pennyroyal, mint, chamomile, &c.

——— Gather aromatic herbs for drying and distilling, of the sorts directed in June and July.

Artichokes—now in production of heads, break down the stalks according as the fruit is gathered.

Asparagus—now all run to stalk, requires only clearing from weeds

Balm—gather for drying, and plant slips.

Beans—plant (b.) for a Michaelmas crop, of the maza.

gans, white blossoms, &c. in a south exposure: they will produce in the latter end of September, October, &c.

Kidney-beans—a moderate crop may be sowed (b.) of some dwarf kinds, as the Battersea and Canterbury white dwarfs, black and red speckled, &c. for latest production 'See JULY.]

Borage, chervil, and corn salad—may now be sowed for autumn and winter, and the following spring; either broad cast and raked in, or in shallow drills six inches asunder; all to remain where sowed.

Borecole—plant out the last full crops.

Broccoli—finish planting the last principal crop (b. m.)

Cabbage plants—of the June and July sowing, plant out abundantly for late young cabbage and cabbage coleworts for autumn and winter.

——— Sow cabbage seed (b.) for a full crop of young plants to stand the winter, and for early and first general crops next summer; for which have seed both of the early kinds, as early York, sugar-loaf, Battersea, Deptford, Antwerp, &c. and large late sorts; also of red cabbage; perform the sowing neither sooner nor later than from about the third or fourth, to the tenth or twelfth of this month, that the plants may not run in the spring *(remark this)*, and that they may acquire proper strength to stand the winter, sow at the above time, for cabbage coleworts, some Yorkshire, Battersea, sugar-loaf, &c. as being close-growing and quick-hearting kinds.

Turnip-cabbage—if in request, plant out two feet asunder.

Savoys—finish planting the main crops (b.) in rows at two feet distance.

Cardoons—advanced to large growth, tie up the leaves close, and earth-up all round each plant, to blanch them.

Carrots—sow a small crop (b. m.), to come in for drawing young in the spring.

Cauliflowers—planted out last month for the autumn and winter crops, should be hoed, and earth drawn about the stems.

——— *Sow cauliflower seed*—for a supply of young plants to stand the winter, in frames, hand-glasses, and warm borders: perform this sowing from the 18th to the 21st or 23d at latest *(observe the time)*; and the plants surviving the winter are to be planted out in the spring, for early and main summer crops; for which be careful to observe the above-mentioned time of sowing, not sooner nor later; for if sowed sooner, many of the young plants are apt to button or run to small button heads in winter, if a mild open season; and if sowed later, will not obtain proper strength before the winter, or commencement of cold weather.

Celeriac—earth up and plant more in drills.

Celery—continue planting more into trenches, for a plentiful successional winter crop, and earth-up the former planted moderately, once a week or fortnight, for blanching.

—— Prick out the late seedling celery, to grow strong, for final transplanting in the end of autumn.

—— Some of the forward planted celery in trenches, will now be blanched in tolerable perfection, to take up for general use occasionally as wanted.

Coleworts—plant out plenty in rows a foot asunder, for autumn and winter.

——Prick out coleworts from seed-beds.

—— Sow colewort seed (b.) of the early close growing cabbage kinds, a full crop to plant out next month and October, for winter and following spring.

—— Or sow also a good crop, from about the fourth or fifth to the tenth; principally for spring, not to run in that season; and what are not used for coleworts will advance to good headed cabbages.

Cucumbers—now in hot dry weather want water every day.

———— Hand-glasses, or cucumber ridges, may either be removed, or still continued, to defend the main stem of the plants from intemperate weather.

———— The cucumbers in frames may now be fully exposed occasionally; or may continue the frames and glasses over some, either in the frame beds, or some spare frames, &c. placed over some of the hand-glass ridges or picklers, to defend them occasionally with the glasses of the said frames, from excessive rains, whereby to preserve the plants in a good bearing state, and the fruit of a clear clean handsome growth, and free from spots.

——— Pickling cucumbers in the open ground, now in a bearing state, should be gathered young for that occasion, or some left to grow larger for other purposes.

———— May sow or plant cucumbers (b.) in a slender hot-bed, defended with glasses of nights, in unfavourable weather; and transplant some in a hot-bed under frames and glasses (b. m.) to produce some late fruit in October &c.

Dill—now in seed-umbels, is proper to gather for use, as in pickling, &c.

Endive—should be planted now in full crops for autumn and winter, the green curled for the main crops, and some white curled and Batavian endive as secondary crops, planting the whole twelve or fifteeen inches asunder, each sort separate: giving water.

—— Tie up full grown endive every week, to blanch.

—— Sow a last crop of endive (b. m.), for winter and next spring.

Fennel—may be sowed, and old roots or off-sets thereof planted.

Garlic, shallots, and rocambole—finish taking up for keeping.

Leeks—complete planting the main crops (b. m.); shorten the long fibres of the root and tops of the leaves, plant them in rows nine by six inches asunder, and water them. [See JULY.]

Lettuces—sow white and green cos, brown Dutch, imperial, Silesia, and white and green cabbage-lettuce, (b. m. l.) for autumn, winter, and next spring.

—— Plant and thin the last raised lettuce to a foo distance, to grow for use this autumn.

Sweet marjoram—now of full growth, pull up a portio to dry for winter.

Mint—finish gathering, to dry for keeping.

Mushroom beds—may be made; and collect mushroom spawn. [See last month and SEPTEMBER.]

Nasturtium berries—gather for pickling.

Onions—arrived to full growth in large bulbs, and the stalks and leaves withering, should be pulled up, spread to dry and harden, and housed.

—— Gather small button onions for pickling; also the top bulbs of the tree onion.

—— Sow winter onions (b. m. l.) both of the bulbous and Welsh kinds, to draw in young growths the end of autumn, part of winter, and all the spring months; and some of the former to remain for early bulbing next summer; as the Welch onion never bulbs, but is the most hardy to stand the winter, sow some for a certain plentiful crop of young spring onions or cibols.

—— Let them be sowed very thick in four feet wide beds, each sort separate; tread down the seed, and rake it in regularly.

Melons—defend from excessive rain and cold nights, continuing the frames and lights, &c. constantly over the beds.

—— Give air freely to melons in hot dry weather, and occasional moderate waterings.

—— But melons ripening, water very sparingly.

—— To hand-glasses, melon beds, still continue the glasses over the plants, and defend them occasionally from excessive wet, by the means advised last month.

—— Likewise observe the same care to melons under oiled paper frames.

Parsley—may be sowed (b.) if required.

Peas—a small or moderate supply of hotspurs and dwarfs may be sowed (b.) for the last crop.

Potatoes—now well increased in size, may be taken up in larger quantities, but let the main crop continue in growth till October.

Pot and sweet herbs—may be planted of different sorts, both in full plants and in rooted slips and off-sets.

Radishes—sow (b. m l.) for autumn, both of the red short tops, and more plentifully of the salmon kind.

———— Sow also turnip-radishes.

———— Likewise sow black Spanish radish (b.) for autumn and winter.

———— *Radish seed pots*—gather to pickle.

Turnip radish—sow some small white and red sorts for autumn; the large black Spanish (b. m.) for autumn and winter; and hoe the last sowed young crops, thinning the former two or three inches, the last six or eight.

Small sallading—sow once a week or fortnight, watered and shaded in hot sunny weather, till the plants come up; or sow in a shady border.

Spinach—sow the winter crop of the prickly-seeded or triangular-leaved kind (b. m.) and towards (l.), this sort being the hardiest to stand the winter, generally sowing the seed broad-cast and raked in regularly; some may be sowed in drills.

—— Or may also sow round leaved spinach (b.), for use the latter end of autumn, &c.

——— In sowing the above crop of winter spinach, may scatter a small portion of hardy green cabbage lettuce thinly to cut out in winter, and for early spring sallads.

Strawberry-beds—done bearing, clear from weeds, and cut away the large old leaves and spreading runners, that the plants may more effectually acquire a fresh stocky growth before winter.

———————— Plant strawberries in young runner plants or side off-sets. [See JUNE and SEPTEMBER.]

Turnips—sow the last crop (b.m.) hoe and thin the young advancing crops sowed last month, &c.

French turnips—sow (b. m.), and thin the former sowed five or six inches asunder. [See JULY.]

FRUIT GARDEN AND ORCHARD.

At this season many sorts of fruit will be ripening; and those upon wall-trees and espaliers should have all possible assistance, by continuing the trees trained close and regular, to admit the beneficial effects of the free air and benign influence of the sun, that the fruit may attain its peculiar perfection in growth, ripeness, and flavour.

Occasional pruning and training—in wall trees and espaliers, will still be required; and if any principal summer pruning, nailing, &c. remains to be done, complete the whole now as soon as possible.

———————— No pruning in standards is particularly required at this season.

Wall-tress—and espaliers, should have all principal summer pruning and training completed, by cutting out the foreright and other ill placed, improper, and superfluous shoots of the year, and training in the others close to the wall, not now shortened, where room to extend them. [See JUNE and JULY.]

———— Pruned the two last months, and the shoots trained in should be gone over again now, to cut out after-shoots not useful or requisite, and to adjust any irregularity of the former trained that project from the wall, and the others that advance in length; nailing and fastening the whole in close, both to preserve the regularity of the trees, and to admit the sun and air freely to the fruit.

Train in necessary proper shoots—such as the well placed side productions and leaders to the branches; continue them at full length where there is room.[See JUNE and JULY.]

Budding or inoculating—should now be finished in fruit-trees (b. m.)

Fruit—now ripening abundantly on wall trees, espaliers, and standards, gather for present eating; as apricots, peaches, some early nectarines, figs, and grapes; plenty of pears, plums, cherries, currants, late gooseberries, raspberries, mulberries, filberts, apples, &c.

Protect ripe wall fruit—from the depredation of wasps and flies, by placing phials of sweetened or strong-smelling liquor, to decoy and drown them.

—————— Likewise net cherries and other choice wall fruit, to keep off birds.

Vines—will still require particular attention, as they will yet advance in many useless shoots, which should be constantly pruned out; and the former-trained shoots, both of the present bearers, and others, continue to train to the wall close and regular, to admit the full sun and free air to the grapes, now well advanced in growth, and some ripening; and as the said shoots will now be much advanced in length, continue those eligible for next year's bearers, and train them in accordingly; shorten any of considerable extent beyond their limited bounds, and most of the fruit bearing shoots, may now be moderately shortened, a joint or two above the fruit, according to their strength, extension, and situation on the vine: for by shortening or stopping the present fruit-shoots, it will turn the nourishment more fully to the growth of the grapes.

Fig-trees—should have the fore-right ill-placed shoots pruned away; but retain all the others generally at their full length, and nail them in regular, to admit the full sun to the figs now beginning to ripen.

FLOWER GARDEN AND PLEASURE GROUND.

Continue to keep all parts of the pleasure ground, &c. in neat order, by hoeing, raking and cleaning the borders, beds, and shrubberies; clipping edgings and hedges: rolling gravel, and mowing grass, &c.

Dig—vacant beds and borders.

Weeds—being unsightly and detrimental, keep them always well under, especially as they will now be advancing numerously in the autumn growth.

Hoe and rake—borders, shrubberies; continue the flowers and shrubs always in regular order, and clear from weeds and litter

Thrift edgings—cut off the decayed flowers, and in thick close edgings that are considerably spreading and irregular, cut the sides regularly even; new edgings may be planted, (m. l.)

Box edgings—clip; and new ones may be planted (m l.) [See JULY and OCTOBER.]

Clipping—finish in hedges and box edgings.

Prune disorderly growths—in flowers and shrubs.

Pink and carnation pipings—early planted, if well struck out, and advanced in growth, should be pricked out; and finish planting pipings (b.) covered close with a hand-glass; or, in this late planting, if some pots thereof were placed in a bark bed, &c. it would forward them considerably; give occasional shade from the hot sun, and moderate watering, to make them strike sooner and more effectually.

Sowing, planting, and removing—will be necessary in several sorts of seeds, plants, roots, off-sets, slips, &c.

Articles to sow—are principally auriculas, polyanthuses, anemones, ranunculusses, seeds of bulbous roots, &c. (b. m.); all in large pots, either to move to shade in summer or shelter in winter; or may all be sowed in a bed or border.

Planting—may be performed occasionally; such as to finish pricking out seedling perennials and biennials from seed-beds; and layers and pipings of carnations and pinks; also plant off-sets of bulbous roots, autumnal flowering bulbs, and slips and off-sets of perennials; or present flowering annuals and moderate perennials may be occasionally removed with balls, to supply vacancies; water well.

Flower plants—continue always in some regularity of growth, by occasionally trimming any ill-growing productions; give timely support of sticks or stakes, where needful.

Flowering plants requiring transplanting—to flower the same year, may be removed with balls, in many sorts of annuals, and some fibrous rooted moderate growing perennials, &c. and well watered.

Biennials and perennials—finish pricking out late seedlings, and plant off-sets from old plants.

Seed—gather of all annual and biennial flowers now ripe, and of any perennials required.

Annual flower seeds—gather all sorts as they attain maturity: to obtain that of tender curious sorts, place some pots in a deep garden frame or glass case, to protect them from rain and cold; as finest balsams, cock's-combs, anemones, ranunculuses, &c.

Annual flower seeds—To annuals in pots give frequent waterings in dry weather.

Bulbous roots—lately out of bloom, and the stalks decaying, may be taken up, if required, and the off-sets separated.

——————— Plant all bulbous off-sets, especially small ones, in separate beds from the main bulbs.

——————— The main bulbs and large off-sets, now taken up in proper time at the decay of the leaves and stalks, may be housed for autumn planting, &c. but if any are unavoidably removed that have commenced a fresh growth in new root fibres, they should be replanted again as soon as possible.

Dig beds—for bulbous roots, to improve the soil ready for planting.

Autumnal flowering bulbs—finish planting, to flower the same autumn; as colchicums, autumnal crocus, sea daffodil, &c. (b m.), in beds, borders, or pots; also Guernsey and Belladonna lilies in pots, to place under shelter from rain and cold in autumn and winter.

Gravel walks—give occasional weeding, sweeping, and rolling.

Rolling—is necessary to gravel walks always once or twice a week, and occasionally to grass.

Grass lawns, plats, &c.—keep always neatly cut close and even, by timely mowing, and sometimes rolling.

Turf—may be cut and laid for grass lawns, plats, &c. or in want thereof sow grass seed, (m. l.)

Hedges—both deciduous and evergreen, finish clipping, cutting them in close nearly to the old wood, or former year's cut, especially old hedges, that they may not grow out too broad or wide; and clip the sides and top even, narrowing them regularly upward. [See JUNE.]

—— *Young hedges*—yet in training, clip the sides even in proper regularity, but cut the top rather sparing or moderately, or only so as to have the whole advance in regular order.

Water—give to plants in pots often in dry weather, and to any newly-planted; also to late layers and pipings, &c.

In dry weather—give water to all plants in pots, and t any articles lately sowed and planted; likewise while dry weather continues, hoe down weeds in all borders, beds, &c. that they may soon die effectually.

Auriculas in pots—should be fresh potted (b. m.); turn them out of the old earth, detach off-sets and dead leaves, prune decayed parts of the root and fibres, replant them in pots of new compost, water, and place in a shady border.

———————— Plant auricula off-sets, and sow seed.

Carnations—should be finished laying (b): early layers and pipings well rooted, plant off in beds or pots; and save carnation seed.

Colchicums and autumnal crocusses—plant (b. m.) to flower the same year in autumn.

Gourds—train to walls, stakes, arbours, &c. and water in dry weather.

Daisies—may be slipped (m. l.), or the roots parted into smaller or larger sets, and planted in beds and borders, occasionally for edgings.

Heart's-ease, or pansies—large Dutch and other particular kinds, plant off-sets, slips, or cuttings, in a shady border; or large bushy plants may be slipped or parted into separate rooted off-sets, and planted as above, as the seed is not to be depended on. [See JULY.]

Lilies—of the white, orange and martagon kinds, &c. that are now done flowering, and the stalks decaying, may be removed, where required, to part the off-sets, especially where old roots have increased by off-sets into large bunches, which may either be taken up wholly and separated, or the main roots may remain, detaching the outward off-set bulb; and in either method the whole generally planted again soon after, but especially the small off-sets; plant the others next month or October, to have them flower well next summer.

Mignionette—may be sowed and planted in pots, for late flowering; and some (m. l.) to winter in frames.

Polyanthusses—may be parted or slipped, when rain, and seed sowed.

Ten-weeks-stocks—may be sowed, to pot for winter.

Brompton and queen stocks—may now be finally transplanted into borders, &c. where they are to remain, and me in pots.

Shrubberies—still continue in neat order, by hoeing

[illegible]

[illegible]

[illegible]

[illegible] November [illegible]

[illegible] and the [illegible]

[illegible] the whole [illegible] the grafting and [illegible]

[illegible] irregular and [illegible]

Prune or train—any very irregular or disorderly shoots of the year in the nursery trees and shrubs, retrenching or reducing any casual, very rampant, or rambling run-away growths, and low stragglers.

—— *Evergreens*—according as they may require, either to regulate disorderly shoots of the year, or to reduce any irregularities in older branches; also to cut, train, or trim particular sorts of edges, in any desired form.

—— *Flowering shrubs*—where it may seem necessary, to reduce rude or strong rambling shoots of the year.

Finish clipping edges—both of evergreen and deciduous kinds.

Water—in dry hot weather, beds of several sorts of small young trees and shrubs, &c. and beds of any young evergreens lately pricked out; also cuttings and layers of the present summer, and all plants in pots.

Weeding—will still be necessary occasionally, for autumnal weeds will begin to advance numerously, and should be diligently eradicated.

Hoeing in dry weather—should be properly attended to at this season, in all parts where weeds are advancing in considerable growth, between rows of nursery trees, shrubs, and other plants.

Hand-weed—in proper time, all beds, &c. of small close growing young plants.

THE GREEN-HOUSE.

All the exotics of the green-house being now in the open air, are to continue so till the latter end of next month; except very wet weather happens (1.) when the more tender small succulent plants may be housed.

At this season all the plants will want water often in dry weather; some shifting into larger pots, and other fresh-earthed, or the crusted top earth loosened.

Shifting—into larger pots, may be performed occasionally to any particular plants in want thereof; remove with the ball of earth to the roots, previously adding some fresh earth in the bottom of the allotted pots, and place the plant therein; apply more earth round the sides and top of the ball, and give water.

Loosen the earth—sometime in the tops of pots, where crusted or bound; or also occasionally apply some fresh mould.

Clean the heads and leaves--of oranges, lemons, &c. by sometimes watering over the tops.

Young orange stocks—that are drawing in heat under frames and glasses, expose by degrees (b.) to the full air, to strengthen their growth before the approach of cold weather.

——— Also, any orange, and lemon trees, &c. imported from abroad, obtained at the Italian warehouses, &c. in the spring, generally with shortened naked heads and roots, and planted in pots, placed in a bark-bed, in a glass-case to forward their fresh-rooting and producing of top shoots, should now be inured to the full air to strengthen their growth.

Budding of oranges and lemons, &c—finish (b. m.)

Succulent plants—of aloes, ficoides, sedums, &c. may be shifted into larger pots, if any are in want; and this is a proper season to plant suckers thereof, also off-sets and cuttings.

Planting slips and cuttings—of the present young wood of myrtles, heaths, and geraniums, &c. may still be done (b.), covered with hand-glasses, especially the myrtles and heaths. [See MAY and JUNE, &c.] And if some are also placed in a bark-bed, shaded from the sun, it would much forward their effectual rooting; and to those of different kinds early planted, if well struck and of advancing top growth, give now the full air in all temperate weather.

Young plants of seedlings, cuttings, &c.—raised this year of some advancing growth, transplant singly in small pots.

Pruning—may be performed occasionally to any green-house plants, to reduce casual, rambling, and ill-growing shoots.

Decayed leaves and dead wood—unsightly and hurtful, always clear off.

Watering—to the green-house exotics, must now be well attended to in dry hot weather, every day or two, of a morning or afternoon: plants in small pots, will need water once or twice a day, when very hot and dry.

Water and shade—small seedling plants, and new-planted cuttings, &c.

Green-house plants in general—raised this year from seed, *ckers, cuttings*, slips, layers, off-sets, &c. under glasses, and are of advancing growth, should now mostly have the free air all this and next month.

HOT-HOUSE AND STOVE.

The hot-house plants, always continuing in that department must have a large admission of fresh air, giving frequent waterings; and in the pinery, &c. the bark-bed heat is necessary.

In this month early preparations must be made for shifting the succession pines into larger pots, with some fresh earth. For this purpose, proper pots and a quantity of rich mellow earth, or light loamy compost must be ready, together with some fresh tan, to renew the heat of the bark-bed, in which to replunge the pots of pines after shifting, that the revived heat of the bed may forward the emission of new root-fibres into the fresh earth more expeditiously and effectually.

Admit air—freely into the hot-house every day, by opening the glasses considerably in sunny weather.

Give water—two or three times a week, or according as the earth in the pots becomes dry.

Plant cuttings, *suckers*, *off-sets*, *&c.*—of succulent and other hot-house plants, all in pots, and place them in the bark-bed (b.), to accelerate their rooting; give a moderate watering.

Shift pots—of any plants, wanting it, as also young and succession pines.

The bark-bed—in the succession pineries will want renewing in heat, by application of fresh tan, preparatory for the succession pines at the time of shifting, which must be performed; also for the younger succession pines, the beds should be kept revived to a proper heat.

Ripening pine apples—now advancing fast to maturity, give but very moderate watering.

The succession pine plants—two years old, for producing fruit next year, must now be shifted (b. m.) into larger pots (24s. or 32s.) finally to remain for fruiting; but previous to this, provide a quantity of new tanner's bark, about one-third of what the bark-bed contains; the pots to be then taken out, and the plants shifted mostly with the ball of earth entire into the larger pots, one in each, with some fresh earth previously added in the bottom of the said pots, and the plants placed therein, one in each pot, as aforesaid; fill up round the ball and roots with more compost, raising it an inch or two over the top of the ball, and give water; then remove the decayed earthy old tan at the top of the bark-bed, and add a proportionable quantity of new tan, forking up the whole together, and directly replunge the pots of plants; the warm old tan will soon give a proper degree of heat to the new, and the new will enliven the old; both together will immediately impart a lively moderate heat about the roots of the plants to forward their free-rooting and proper advancement in growth for fruiting.

——————— In the above shifting, if any of the plants appear of an unhealthy weakly state, it would be proper to take them clean out of the ball, trim and wash the roots, and repot them in entire new earth; water and plunge them in the bark-beds as above.

——————— Wanting larger pots may also be shifted . likewise the younger pines.

Propagate pines—by planting suckers from old plants, and crowns and suckers obtained from the ripe fruit, each in a small pot.; water and plunge them in a bark-bed, or dung hotbed, under a frame or glass.

SEPTEMBER.

THE KITCHEN GARDEN.

In this month finish sowing and planting several principal crops; some for succession the present autumn and following winter, and others to stand the winter in young growth, to come in for early crops next spring and summer, as directed for each under its respective head.

Prepare ground become vacant—by dunging and digging for succeeding crops.

Sow—spinach, lettuce, onions, radishes, turnips, turnip-radish, cabbages, coleworts, corn-sallad, chervill, coriander, and borage; and successions of small sallading, as cresses, mustard, &c. [See each sort.]

Plant—celery, endive, coleworts, cabbages, savoys, brocoli, borecole, lettuce, leeks, strawberries and the several sorts of perenial aromatic and pot-herbs, where any are wanted. [See the different articles.]

Prick out—young cauliflowers, cabbages, coleworts, and lettuces.

Seeds now ripe—gather of cauliflowers, leeks, lettuce, radish, onions. spinach, &c.

Weeding—must now be carefully attended to in seed-beds and others of autumn raised young plants; as onions, spinach, lettuce, &c. and weeds advancing numerously between wide crops in rows and in vacant ground hoe down effectually in dry weather.

Hoe and hand-weed—in dry weather, to extirpate weeds between all growing crops, and in vacant ground.

Watering—is still necessary in dry weather, to all newly pricked out small plants and others, at first planting; also occasionally to seed-beds of late sowed articles; and to plants in hotbeds.

Aromatic herbs—should have the decayed flower stalks cut down (m. l.), and the beds clear from weeds, loosening the surface where the plants will admit.

——— Several sorts of aromatics may be planted in full plants; as thyme, sage, savory, hyssop, pot-marjoram, balm, tarragon, tansey, tarragon, pennyroyal, and roots of mint; also several by rooted slips, roots parted, &c. [See also pot herbs.]

——— Finish gathering all sorts (b.), to dry for keeping.

Artichokes—according as the heads are gathered should have the remaining part of the stems broke down, to encourage shoots from the bottom more effectually before winter.

Asparagus—require no particular culture now, only to pull out large weeds. [See OCTOBER.]

——— *to force*—three year old plants may be planted in a hotbed (l.) for the first winter crop, to cut in November; and by planting some every month, a continued succession all winter may be procured. [See NOVMEBER.]

Balm and burnet—may be planted sn slips or off-sets.

Beans—late crop, hoe and earth-up the stems (b. m.), and if in blossom or podding, let ths stems be topped, if not done, to make them fruit more abundantly and come sooner to perfection, before the approach of cold weather.

Kidney-beans—hoe and earth-up the last advancing young crops, (b: m.)

Red-beet—the roots will now be of proper size to be occasionally taken up for use, (m. l.)

Borage--may be sowed and plants thinned.

Broccoli and borecole—early planted broccoli will begin to head for use (m. l.) and two following months.

———————— plant out the last crop (b. m.) a foot and a half or two feet asunder.

Cabbage plants--of the July sowing, plant out plenty (b. m.) for young winter cabbages, and cabbage coleworts; hoe and earth the stems of advancing crops.

——— *The August sowed young cabbage plants*—for next summer's early and first main crops, prick in nursery-beds three or four inches asunder, giving water; may also sow a finishing small crop, (b.) [See OCTOBER.]

——— *Red cabbage*—early planted will now be in tolerable full cabbaged heads (m. l.) to cut for use as occasionally wanted.

Turnip-cabbage—finish planting out (b. m.)

Savoys—finish planting out the last late crop for small heading, or savoy coleworts.

Cardoons—of full growth, tie up the leaves and hand-up the plants.

Cardoons, celery, and finochio—earth-up.

Carrots—young plants of August-sowing for spring, weed and thin to three inches asunder.

——— The main crops of spring-sowed carrots are now in good perfection for use; but not to take up for keeping in sand for winter, till (l.) October or (b.) November.

Cauliflowers—hoe and draw earth to the stems of the Michaelmas, or autumn and winter crop.

——— *The young cauliflower plants*—of the August sowing for the next year's early and main crops, should be pricked out (m. l.), or when the first two or three leaves are about an inch, or inch and half broad, pricking them into nursery-beds of rich light earth, three inches asunder; shade and water them till they take root. [See OCT.]

——— Be now very careful to guard from birds, and gather seed branches according as they acquire maturity (m. l.)

Celery—of advanced growth in trenches, earth-up every week to blanch.

——— Plant out late crops of celery in moderate trenches for winter and spring.

Chervil and corn-salad—finish sowing for winter and spring.

Coleworts—plant out full crops for winter and spring, of the July and earliest August sowed plants, in rows at a foot distance by six or eight inches in the rows.

——— Also plant out finally as above (m. l.), a good crop of the strongest cabbage coleworts sowed in August, to stand for spring and summer, without running. [See AUGUST.]

Coriander—where in request for soups, &c. sow in a warm border or frame for winter.

Cucumbers—continue to water, if hot dry weather, (b.); and now gather full supplies of young fruit for pickling before (m.), after which they will decline in production, and the fruit become spotted.

———— Gather large cucumbers for mangoes.

———— Defend some holes of best young cucumbers with a frame and glasses (b. m.), to continue them longer in production of handsome clean fruit.

———— Or plant or sow cucumbers in a hotbed (b.), to produce late in autumn, &c.

Endive—plant successional crops of the green curled in a dry situation, for winter and spring; and tie up the leaves of full grown plants in dry weather, every week, to blanch.

Herbary—clear from weeds and decayed stalks, and furnish with any necessary aromatic and pot herbs wanted, (b. m.)

Horse-radish—the roots now well advanced, may dig up some for use, as wanted. [See OCTOBER.]

Leeks—plant the last crop (b. m.) and hoe others.

Lettuces—raised last month, should now be thinned, and plant some largest (b. m.) for late autumn crops, and for winter; and some on warm borders (m. l.) for winter and early spring, &c.

——— Sow lettuce; such as cos, Cilicia, brown Dutch, hardy green, and imperial, &c. (b. m. l.); some to plant in warm borders, or under frames and hand-glasses, &c. others to remain where sowed; all for spring and early summer crops.

Love-apples—will now be ripe to gather for soups, pickling, &c. the young green fruit is also proper to pickle.

Sweet marjoram and marigold flowers—finish gathering to dry for winter.

Melons—continue to defend from rain, and cold nights, with frames, glasses, and mats, &c. both those ripening, and those advancing in fruit.

Green melons for mangoes—may be gathered in latest fruit, not likely to ripen.

Mushroom beds—may now be made for full production, end of autumn and in winter, as spawn is now most generally obtained in good perfection. [See JULY.] The spawn is to be found in decayed dryish rotten dung; such as old hotbeds, layers of decayed horse dung, and similar dungy compost heaps; horse-mill tracks, and dungy horse rides in stable-yards, &c.; it is of a whitish fibrous nature, interspersed in the dung, and produced, probably, from the seed of former mushrooms; this seed, however, if it really does exist, is wonderfully minute (probably as the finest dust) and is prodigiously numerous and disseminated; it is scattered over various substances, so as to be always ready to germinate when the peculiar circumstances essential to this occur; and then, in its vegetative function, produces the above material, called spawn, of which a proper quantity of the spawny lumps must be procured for planting in the bed, for the production of the future mushrooms: about one to two or three bushels are requisite for a bed of ten or fifteen to twenty, thirty, or forty feet long, and in proportion for smaller or more extensive beds.

—————— Make the bed with fresh warm horse stable dung, which should be previously prepared by forking it up in a mixed order into a heap, for at least a week or fortnight, to pass off the burning steam and heat, that the whole may mellow of an equal consistence, and with which make this bed, in form of the ridge of a house, four or five feet wide at bottom, by three or four feet high, narrowed to a ridge at top; the length, as required, from ten or twenty to forty or fifty feet, &c. and in a fortnight or three weeks, when the great heat is abated, (not before) put in the spawn, previously breaking the large lumps into moderate small pieces, planting it into both sides and ends, inserted either just within the surface, or placed immediately upon the dung, but preferably the former; and, in either method, placed five or six inches asunder, and earthed over two inches, then cover with straw, six or eight inches to a foot thick, to be continued constantly over the bed: it will produce mushrooms in a month, or six or eight weeks.

Mushroom beds—Or in spawning the bed, instead of inserting the spawn into the dung, or upon the surface thereof, it is occasionally effected by first earthing the bed all over about an inch and a half thick, inserting the spawn close down to the dung, and then covering the whole over with earth an inch deep.

—————— Observe in the different methods of spawning, when finally earthed over, let the surface of the bed be gently smoothed with the back of a spade, both to fix it properly, and that falling wet from excessive rains, &c. or any redundant moisture, may more quickly drain off.

—————— The above being the general practical directions for making and spawning mushroom beds, I shall only add some essential particulars very necessary to be observed.

—————— As the mushroom spawn is of so peculiarly delicate a nature, that either too violent heat in the bed, or excessive wet and cold, would inevitably destroy its vegetative faculty, it is necessary to make the bed in the form of a ridge, which is experienced to be the most eligible, in order to have it sooner and more effectually become of the requisite moderate or mild heat: and by its sloping form, more effectually to shoot off or discharge redundant wet and moisture, and to preserve the surface moderately dry: a thick covering of straw is also necessary, both to preserve the gentle heat or warmth, and to defend it from excessive rains, &c. as well as to exclude the external cold and damp.

—————— The bed should be made in a dry sheltered situation, and principally on level ground, (preferable to making the lower part in a trench) both to have the opportunity of spawning it quite to the bottom, and that water may not settle in that part, either to draw the heat or chill the spawn; mark out the proper width and intended length of the bed, agreeable to the foregoing intimations, and then form the bottom part by a layer of dung of the quality and preparation before observed, applying the long and short dung together; begin at one end, and work up the dung to form the bed to the shape and dimensions before mentioned, raising both sides equally in a gradual sloping manner, at once to the proper height, as a general guide to the whole extent, forming the ends nearly in the same proportion. In this manner extend the bed along regularly, continuing the middle well filled up with dung, the sides firm and equal, and the top a little rounding.

Mushroom beds—When the bed is made, it is proper to have two, three, or more trying sticks, (two feet long, and sharp pointed) thrust down into different parts to draw up occasionally to try the heat; for the bed will generally acquire a violent heat the first week or fortnight, or probably longer, (if a strong extensive ridge) and by pulling up the sticks every day or two, and feeling the lower end, you will be able to judge of the proper temperature. When the great vehemency subsides, and the bed is decreased by degrees, to a very moderate or mild heat, then and not before, *(observe this)* put in the spawn as before directed; for the heat should be only sufficient to set the spawn in a vegetative motion to extend its fibres into the dung and earth, and to continue some considerable time in a moderate growing warmth, that it may increase in a spreading manner, and promote and forward the knotting and formation of the mushrooms.

——————When the bed is spawned, and earthed over, if the heat appears to continue quite moderate, it may be directly covered in with dry straw litter the thickness before advised; but as sometimes, after the bed is spawned and cased over with the requisite coat of earth, it, by confining the heat and steam, occasions a renewal of the heat in some considerable degree, therefore it is proper to continue the trying-sticks in the bed, to watch the operation of the heat, which if it discovers a tendency to a too strong temperature, delay applying the general full covering of straw, a few days or a week more, as may appear necessary, and in the interim only apply a thin covering, or occasionally some straw litter upon the top to defend it from rain: but as soon as the heat is decreased to the requisite moderate state, apply the general covering of dry straw litter about six or eight to ten or twelve inches thick; or if still doubtful of any too great after-heat, cover only about half the thickness at first, and augment the other by degrees.

—————— thus the peculiar delicate nature of the spawn requires great precaution in the early state of *the mushroom* bed, to prevent its having too great heat, which would prove its destruction; and afterwards to protect it from wet and cold, by the constant covering of straw, &c

Mushrooms—in a month or five or six weeks after spawning if the bed works kindly, it will begin to produce mushrooms; and if kept in good order, dry and warm, it will continue several months in production.

——— In proceeding to examine the bed, or to gather the produce, turn off the straw covering very carefully; and as the advancing mushrooms will generally appear in several degrees of growth, gather only what are proper, from the size of a large round-headed button to treble or doubly treble that size, before, however, they become large expanded flaps, and generally while they remain compact and firm; detach them by a gentle twist clean to the root, not cut them out to leave the stumps in the bed, they being apt to rot, and become maggotty and infectious to the succeeding young crop, which will advance in successional growth, for gathering twice a week, more or less, according to the productive state of the bed.

——— Always as soon as finished gathering, cover the bed again directly with the straw litter, especially in cold, wet, or raw damp weather; at any rate it should never remain long uncovered; only occasionally in a dry warm day, if the earth has received wet, or is very damp or too moist, it may remain open two or three hours to dry the surface; but cover again directly.

Nasturtium berries—gather to pickle when in full growth and while they remain green and fleshy.

Onions—the bulbous crop, pulled up last month in full growth bulbs for keeping, finish housing while dry.

——— Small bulbous onions, to pickle, will now be in perfection.

——— Finish sowing onions (b.) the last crop to stand the winter, for spring and early in the summer. [See AUGUST.] Carefully hand-weed those come up.

Parsley grown rank—cut down close, to come up in a thick low growth for winter.

Parsneps—advancing now to large growth, may be taken up as wanted, (m. l.)

Peas—hoe and stick the last crop, (b.)

Pompions and gourds—are now ripe for gathering.

Pot-herbs—may be planted of evergreen kinds, to use in winter; as thyme, sage, savory, winter marjoram burnet sorrel, &c. in rooted full plants, large off-sets or rooted slips, and may also plant mint, tarragon, fennel, pennyroyal, balm, &c.

Potherbs— Or may also slip or part the roots of the above pot-herbs for further increase.

——— The pot-herbs raised from seeds, slips, &c. in spring and summer, may now be transplanted where they are to remain.

Potatoes—advanced now to a considerable size, may be taken up plentifully for present use as wanted: but not wholly, nor in large quantities for keeping, till (m. l.) October.

Jerusalem artichokes—now arrived to a tolerable growth in the roots, begin to take up as wanted, (m. l.)

Radishes—sow the last principal autumn crop (b. m.) for drawing in October and November.

Turnip-radish—both of the white and red sorts, may be sowed (b. m.) to draw in October and November.

——— Also may sow black turnip-radish (b.) for winter.

——— Hoe and thin the last sowed turnip-radishes; the white and red sorts to about two or three inches, and the black six inches asunder.

Sage—may still be planted where required, in rooted young or full plants.

Salsafy, scorzonera, skirrets, and large rooted parsley—are now in perfection in the root.

Small sallading—if wanted, sow once a week or fortnight.

Spinach—finish the last sowing of the prickly-seeded kind (b.) for winter and spring; and hoe and weed the August sowed crop, and thin the plants moderately.

Strawberry beds—clear from the weeds and cut away all the runner strings, keeping the main plants to single bunches, so as to ripen well.

———Plant strawberries (b. m.) of the strongest young runner plants, or young side off-sets, in beds, borders, &c. as scarlets, Alpines, hautboys, Chilis, and wood, at fifteen to eighteen inches distance, or some in an edging.

——— Or if any young runner sets were planted into nursery beds in June or July, they will now be fine stout plants of a stocky growth, for final planting, as above. [*See* JUNE, *&c.*]

Strawberry-beds—also plant some good plants of scarlet and Alpine strawberries in pots for forcing; both those of two years old, to breathe the ensuing forcing season, and young plants to grow to that age for the same occasion.

Turnips—may be sowed a small crop (b.) for spring; and hoe and thin the August sowed plants.

FRUIT GARDEN AND ORCHARD.

In this month most sorts of wall and espalier fruit will be ripe and ripening, also many sorts on standards; and as the principal summer pruning and training in wall and espailer trees was finished in the preceding months, that operation will now be inconsiderable, only to displace any autumnal after-shoots, or to reform casual irregularities, and to extend to the wall the elongated shoots of the former training.

Give still proper attention to wall trees and espaliers in general, it being a particular merit to continue them always well trained, appearing regular and agreeable to sight, and greatly beneficial to the trees and fruit.

Prepare borders designed for planting—with wall and espalier trees, by trenching, manuring, &c.

Wall and espalier trees—complete all that is necessary in the operation of summer pruning and training (b. m.)

Wall trees—formerly regulated in the preceding months go over, cut out any lately produced after-shoots and nail in the others formerly trained; if any project from the wall, or are increased considerably in length, train them in close and regular, not shortened, except where any overtop the wall considerably, or extend sideways beyond their limited bounds.

——— In the above regulations of wall and espalier trees, generally continue the proper shoots entire, only shortening such as considerably exceed the bounds of the walls, &c. either above or sideways.

In peaches and nectarines—the fruit now ripening, cut away improper shoots, and keep the others trained in close to admit the sun, and to give the fruit proper flavour and good colour.

Likewise to plums, pears, cherries, &c.—in wall trees, give any requisite regulation as above.

In vines—the grapes now in full growth, and some ripen ing, will require all possible benefit of the sun; the improper and unnecessary shoots should be pruned out, the long extended shoots shortened more or less, as it may seem necessary to reduce them within proper bounds; and let all the remaining proper shoots be trained in close and regular.

Fig trees—having the fruit now ripening, and strong shoots advancing, should have irregular fore-rights cut out and the others nailed in close to the wall.

Ripe fruit—will now be in perfection almost in general to gather for present eating; as peaches, nectarines, plums, pears, late cherries, figs, grapes, apples, currants, raspberries, mulberries, filberts, and quinces.

Choice wall fruit—protect from birds by nets; and from wasps and flies, by phials of liquor to drown them.

Ripe grapes—protect the best bunches in paper bags, or rather of thin gauze or crape.

Ripe apples and pears—are now plentiful in the summer kinds (b. m.) for present supply, but will not keep long; gather the autumnal sorts (m. l.) both for immediate use and keeping a short time till the maturity of the winter, fruit next month, &c.

Elderberries—now ripe in full perfection, gather for making elder wine.

Stones of plums and cherries—save to sow for stocks.

FLOWER GARDEN AND PLEASURE GROUND.

As in this month and next, various kinds of plants, shrubs, &c. may be planted, for furnishing the different compartments where necessary, preparations for that occasion may now be commenced at proper opportunities, and the several articles planted, as hereafter explained.

Keep in good order—all parts of the ground, by trimming disorderly growths; hoeing and raking borders and other compartments; clipping edgings, and hedges, mowing, sweeping and rolling grass, and gravel.

Dig—vacant beds and borders for bulbous roots, and other perennial and biennial flowering plants, to be planted this and next month.

Planting—may be performed in beds, borders. pots, &c. in many sorts of flower plants and bulbous roots for flowering next year, and in evergreens; likewise in several sorts of deciduous shrubs, when the leaves begin to decay (L.) and root off-sets and slips of various perennial flowers.

Hoe and rake borders, &c.—in dry weather, to continue them always in clean neat order.

Edgings—may be planted of box, thrift, daisies, pinks, London-pride, strawberries, &c.

Box edgings—finish clipping (b. m.); and edgings may be planted, as directed in October.

Thrift—may be planted for edgings, and as a flowering plant, in borders, &c. When designed for an edging, it may either be placed close, to form at once a complete edging, or where the sets are scarce, may be planted two or three inches asunder, to grow close by degrees. [See OCTOBER.]

Decayed stalks and leaves—of flowers, &c. always clear away from among the growing plants.

Plants in pots—may be fresh-earthed at top of the pots, or the top earth loosened; or where wanted, shifted or fresh potted.

Pipings of pinks and carnations—that are well struck and advanced in growth, should be planted in beds, borders, and pots.

Seeds of flowers—gather according as they ripen: but particularly of all annuals and biennials.

Biennial flowers—raised this year, may be planted out finally, (m. l.) [See OCTOBER.]

Perennials—may now be planted, principally for flowering the ensuing year, either young plants or old ones done flowering; or by slips, off sets, or parting the roots thereof; and plant our from the nursery beds (m. l.) young plants of this year's raising into flower-borders, &c. where they are to remain.

Part roots—of perennials done flowering, to increase such as are required. Many sorts may now be propagated by that method.

Slip roots—of perennials done flowering, to propagate the sorts required.

Annual flowers—give water in dry weather to all those in pots; and save seeds of all sorts according as they ripen, as they can only be raised from seed sowed annually.

——— Or tender curious annuals for seed, such as balsams, cocks-combs, tricolors, globe amaranthus, &c. defend some in pots placed in frames or glasses, or oil-paper, turity: to obtain that of tender curious sorts, place some pots in a deep garden frame or glass case, to protect them from rain and cold; as finest balsams, cock's-combs, anemones, ranunculuses, &c.

Annual flower seeds—To annuals in pots give frequent waterings in dry weather.

Bulbous roots—lately out of bloom, and the stalks decaying, may be taken up, if required, and the off-sets separated.

———— Plant all bulbous off-sets, especially small ones, in separate beds from the main bulbs.

———— The main bulbs and large off-sets, now taken up in proper time at the decay of the leaves and stalks, may be housed for autumn planting, &c. but if any are unavoidably removed that have commenced a fresh growth in new root fibres, they should be replanted again as soon as possible.

Dig beds—for bulbous roots, to improve the soil ready for planting.

Autumnal flowering bulbs—finish planting, to flower the same autumn; as colchicums, autumnal crocus, sea daffodil, &c. (b m.), in beds, borders, or pots; also Guernsey and Belladonna lilies in pots, to place under shelter from rain and cold in autumn and winter.

Gravel walks—give occasional weeding, sweeping, and rolling.

Rolling—is necessary to gravel walks always once or twice a week, and occasionally to grass.

Grass lawns, plats, &c.—keep always neatly cut close and even, by timely mowing, and sometimes rolling.

Turf—may be cut and laid for grass lawns, plats, &c. or in want thereof sow grass seed, (m. l.)

Hedges—both deciduous and evergreen, finish clipping, cutting them in close nearly to the old wood, or former year's cut, especially old hedges, that they may not grow out too broad or wide; and clip the sides and top even, narrowing them regularly upward. [See JUNE.]

—— *Young hedges*—yet in training, clip the sides even in proper regularity, but cut the top rather sparing or moderately, or only so as to have the whole advance in regular order.

Water—give to plants in pots often in dry weather, and to any newly-planted; also to late layers and pipings, &c.

In dry weather—give water to all plants in pots, and tc m.) previously in either method forming a surface of light dry soil, firm and smooth.

Pole grass—to scatter worm-cast earth, where it appears thrown up considerably, and defacing the surface of principal lawns, plats, &c. [See FEBRUARY.]

Edges of grass lawns, &c.—keep trimmed in always close and regular: or any that are irregular, cut even with an edging iron.

Hedges—finish clipping, (b. m.)

Watering—will still be necessary in dry weather to plants in pots, and new planted perennials, shrubs, and trees.

Aconite (winter)—a diminutive early-flowering perennial, may be planted (m. l.) [See OCTOBER.]

Anemones and ranunculuses—may be planted (l.), and seed sowed, (b.) [See OCTOBER.]

Auriculas in pots—finish shifting or fresh potting (b.), as in August; slip and plant the off-sets; and may now sow seed, (b.)

——— ——— Or may now (m. l.) plant any common auriculas in beds or borders, to remain for flowering.

Carnation layers—well-rooted, plant off from the stools into beds and pots.

Layers of carnations—separate from the old stools, and plant in beds, pots, &c.

Chrysanthemums—plant cuttings or slips of the young shoots, five or six inches long (b. m.), of some best double sorts, planting several or many together in largish pots, to move to shelter in winter; they will strike root, and form proper plants to transplant for early flowering next summer.

Crown imperials—plant, and finish transplanting any that are intended.

Daisies—may now be planted; the old roots slipped, or parted into separate off-sets, and planted in beds, borders, &c. and occasionally for edgings.

Guernsey and Belladonna lilies—plant in pots (b.), to move under shelter of a frame, &c. at the approach of cold or bad weather, that they may flower in good perfection the same season.

Hyacinths—begin planting (m. l.) in beds and borders. [See OCTOBER.]

Hydrangea—a beautiful flowering plant, may now be planted in pots, and placed under shelter (l.), or protection in winter.

Lilies—finish planting and transplanting.

Mignionette—plant some in pots, or sow seed to stand the winter, under shelter of frames, &c. for early flowering.

Polyanthus—may be planted, and old roots slipped or parted for propagation.

Tulips—may begin to plant (m. l.) [See OCTOBER.]

Shrubberies—prune and hoe; the requisite care now is principally to reduce any very long rambling shoots of disorderly growth, to hoe up all weeds between the shrubs, and to rake off the loose weeds and litter; forming a clean neat surface.

Shrubs may be planted—of evergreens, (b. m. l.) and deciduous flowering shrubs, (l.)

Prune disorderly shoots—in shrubs and flower plants.

Evergreens—may now be planted (m. l.) in most sorts of shrubs and trees; finish pruning any sorts where needful, and clip edges thereof.

——— Likewise make layers of evergreens, as laurustinus, alaternus, &c. and plant cuttings, especially of laurel.

Lay evergreens—of the young shoots: and plant on former-rooted layers.

Tree planting—may be commenced in evergreens (m.), and some deciduous kinds (l.), when the leaves begin to decay.

Deciduous shrubs and trees—may begin planting some sorts (m. l.) or when the leaves are decaying.

Firs, pines, cedars—and other evergreen tree kinds, may begin planting, (m. l.)

Flowering shrubs—of the deciduous kinds, may begin to plant (l); also evergreen sorts, (b. m. l.)

Laurels—may now be planted (m. l.), and cuttings of the young shoots for increase.

Laurel-leaved magnolia, rhododendron, and arbutus—beautiful evergreens, may be planted, allotting them a warm conspicuous situation.

WORK IN THE NURSERY.

In this month it is proper to commence the preparation of ground for autumnal planting of various nursery trees and shrubs; which in some sorts, evergreens particularly may be proceeded in towards the middle or latter end of the present month; but in others, more generally in October and November. Also may begin the autumn planting of cuttings, and making layers: likewise perform any necessary pruning, and complete all requisite pruning in evergreens in particular: and at this time take particular care to exterminate weeds, both by hoeing between rows, and hand-weeding in close growth.

Dig or trench ground—preparatory to the autumn planting of trees and shrubs, and sowing seeds thereof, that it may be ready, and have the advantage of meliorating by the weather to an improved state, for the reception of plants and seeds; some the latter end of this month, but the general part next month and November.

Autumn planting—may be proceeded in towards the middle and latter end of this month, in many sorts of evergreens; but not so general in deciduous trees and shrubs, only some particular kinds in which the leaves have begun to decay, towards (l.), on discovering they have terminated their year's growth.

Evergreens—may be successfully transplanted (m. l.) according as required; such as pines, firs, cedars, laurels, bays, arbutus, alaturnus, phillyreas, and many others.

Make layers of evergreens—in the young wood of last summer, by which several sorts may be propagated; such as alaternus, phillyreas, laurels, laurustinus, &c. they will be rooted by the following autumn, for planting off into nursery rows.

Plant off layers of evergreens—(m. l.) such as are properly rooted, either of the last autumn, spring, or summer laying, planting the hardy sorts in beds; and any of a tender quality, plant in pots, to have occasional protection in winter.

Plant cuttings of laurel—which is the principal method of propagating that beautiful evergreen, and by which it is raised abundantly; choose the middling strong shoots of the last summer; cut them six or eight to ten or twelve inches long; take off the lower-leaves; plant in a shady border, and water; they will emit the roots the same season or early in the spring.

Deciduous trees and shrubs—although some particular sorts discovering a general decay of the leaves towards (l.) may be successfully transplanted, it would be advisable to defer any general transplanting till (m. l.) next month, or beginning of November, as before intimated.

May begin the autumn-planting of suckers and cuttings —(m. l.) of several sorts of deciduous trees and shrubs.

Plant suckers—(m. l. of roses, lilacs, gooseberries, currants, raspberries, and several other deciduous shrubs towards (l.) when the leaves begin to decay.

Plant cuttings—(m. l.) of honeysuckles, gooseberries, currants, and several other deciduous kinds, now the leaves are decaying and the trees done growth; they being thus early planted in autumn, will have a chance of rooting the same season, or early in spring.

Plant in pots—any curious young evergreens, as arbutus, magnolia, rhododendron, Chinese arbor-vitæ, and several others; and of any other exotic kinds, of a rather tender nature, in order to be removed in their respective pots under temporary shelter in winter, or any other evergreens of the common hardy kinds, that may be required for particular occasions.

Pruning of evergreens—where any is necessary, may now be performed in most sorts; and any considerable work of that kind should now be completed before cold weather prevails.

——— *deciduous trees and shrubs*—but as these may be safely pruned in any of the ensuing months, it is not so material now.

Propagate herbaceous plants—of fibrous-rooted perennials, by parting and slipping the off-sets of the roots, especially in those done flowering, and plant the slips and off-sets in beds, borders, pots, &c.

Save plum and cherry stones—ready for sowing (m. l.) or in October, to raise supplies of stocks for grafting and budding.

Weeds—now generally rising numerously, should be very diligently destroyed at this season, before the setting in of much wet weather; taking, therefore, the opportunity of dry days, hoe between the nursery rows, &c. cutting the weeds clean up by the roots, that they may be effectually killed; and let seed-beds, &c. be carefully hand-weeded.

Watering—will still be necessary occasionally, if hot dry weather; especially to all plants in pots, and to any lately planted, both in pots and the full ground.

THE GREEN-HOUSE.

The green-house plants continue still mostly in the open air till towards (m. or l.), when, or before, if cold or very wet weather, the tenderest kinds may be housed, especially succulent plants, oranges, lemons, &c. but if a warm season, they may remain till (l.) this, or (b. m.) next month.

Trim plants—to clear off decayed leaves, and prune disorderly and decayed shoot; weed and stir the top earth in the pots, especially where crusted or bound; and give necessary watering.

Shift—into larger pots, with some fresh earth, should now be mostly finished in any plants required.

Fresh earth—the tops of pots in general (m. l.), before removal into the green-house, would prove beneficial, first loosening the surface of that in the pots.

Loosen the earth—on the surface of the pots occasionally.

Watering—is still necessary, but more moderately after (m.)

Pruning—perform occasionally, to reduce any rude or rambling shoots, whereby to preserve the heads in regular order; and cut out all decayed parts, both of young and old growth, that casually occur.

In oranges and lemons—thin the young fruit, if set thick in clusters.

Myrtles and geraniums, &c.—where any were bedded in natural earth in May or June, plant now with balls separately in pots; also cuttings planted yearly, several or many together in large pots, &c. if well struck and advanced in top growth, may plant off in small pots, singly; or if small, may remain; or prick several together in large pots, till more advanced in growth; giving water.

———— cuttings or slips of myrtle, heath, &c. small young shoots, may be planted (b.) in pots, &c. covered down with a hand-glass; or may be forwarded in a bark-bed; also geraniums, &c.

Plant—in separate small pots, any newly-raised green-house exotics remaining several together in larger pots, &c. either young seedlings, or cuttings and layers, &c. that are effectually struck and well rooted, and of some advanced top growth.

Propagate green-house plants—(b.), some by suckers, others by rooted off-sets and slips, layers, cuttings, &c.

Succulent plants—any in want of larger pots, may be shifted; suckers and off-sets planted; and if cold or very wet weather prevails, remove the more tender sorts into the green-house; as the ficoides, cercus, African aloe, &c.

——— plant them generally a light dry soil.

——— give but very little water now, or they will rot.

Removal into the green-house—commence, if cold or excessive wet weather, first in the more tender succulents (b. m.), and the oranges, lemons, &c. (m. l.); or, if the weather is warm, they may remain till (b.) next month.

Give the full air—to plants now removed into the green-house, by the windows being opened daily.

HOT-HOUSE AND STOVE.

In the hot-house and pinery, continue still a proper bark-bed heat; give air and water, and finish shifting into larger pots.

Keep all the plants clean—by washing or watering off any foulness, clearing off decayed leaves, dead shoots, &c. and exterminate all insects as much as possible.

Shift—where necessary, into larger pots and fresh earth, finish (b. m.)

Admit fresh air—still freely in warm sunny days; but diminish the admission of air as the heat of the season decreases.

Give water occasionally—to the hot-house plants in general, but more moderately to the succulent tribe.

Propagate hot-house plants—by suckers, off-sets, slips, seeds, &c. assisted by the bark-bed.

Trim and regulate—any hot-house plants in which disorderly growths occur in the branchy shooting kinds, pruning and trimming the straggling and runaway shoots; and in general cut out all dead parts, and clear off decayed leaves.

Fresh earth—the tops of any pots where it appears necessary; or in others where the earth is hard crusted, loosen the surface a little.

Plant suckers and crowns—of pine apple plants, to raise successional supplies; the suckers are afforded from the bottom of old plants, and crowns and small suckers from the ripe fruit; lay them to dry the succulency at bottom a few days; then plant each in a small pot, and plunge in a bark-bed.

Succession pine apple plants—if not shifted, as advised in August, should now be fully finished (b.), and the heat of the bark-bed revived, ready for replunging the pots after shifting, giving moderate supplies of water. [See AUGUST.]

———— No shifting is required in the pines now in fruit.

Fruiting pine apple plants—now in fruit, supply with moderate waterings; but more moderately to those in ripe fruit or ripening.

OCTOBER.

THE KITCHEN GARDEN.

IN this month all sowing and principal planting should be finished for this year; some necessary for winter, and others to remain for next spring and summer.

At this season many crops will be consumed, or past perfection; the ground should be cleared from the refuse, and weeds hoed down, or the ground digged: and all advancing crops should have a thorough clearing from autumnal seed-weeds, &c. some want earthing up, and several sorts of esculent roots should be dug up, to preserve for winter use.

Prepare vacant ground—by dunging and digging for present and future cropping.

Dung ground—from old hotbeds, and with other dung; be careful to apply it where most wanted.

Dig vacant ground—for the present occasional crops, and ridge-up the rest to lie fallow.

Weeds—now destroy in all parts, by hand-weeding and hoeing before winter.

Hoe—in dry weather, to cut down all autumnal weeds before winter, or much rain; likewise hoe between rows of young cabbages, coleworts, savoys, broccoli, &c. and draw earth to the stems; also between leeks, lettuce, endive, celery, &c. and small-hoe spinach.

Hand-weeding—attend to carefully in the beds of young winter onions, spinach, lettuce, &c.

Sow—small crops of lettuce, some radishes, successions of small sallading, and a few early peas to come in forward next summer.

Plant—cabbage, cauliflowers, coleworts, celery, endive, lettuce, and late broccoli and borecole; also may plant garlic and shallots, several aromatic of pot herbs, some plants for seed, and a few early beans for next summer; also plant in hotbeds, asparagus, mushrooms, and cucumbers occasionally.

Plants for producing seed—of several principal sorts that are of full growth, may now be planted; as cabbages, savoys, parsneps, carrots, turnips, red beet, and onions of large sound dried bulbs; also off-sets from old roots of Welch onions; the cabbage and savoys trench down to their heads, in rows two feet asunder; the others may be planted over their crowns at the same distance.

Seeds saved this year—finish beating or rubbing out, and bag up, &c. for next year's sowing.

Esculent roots—may now be digged up in several sorts (1.) to house in sand for winter; as carrots, potatoes, parsneps, red beet, Jerusalem artichokes, salsafy, scorzonera, &c.

Watering—now will hardly be required, unless it proves very dry weather, when a gentle watering may be given to any small newly put out plants.

Hot dung—provide and prepare to make hotbeds for forcing, where required.

Hotbed forcing—is only practised occasionally at this time, for asparagus, mushrooms, and sometimes cucumbers.

Aromatic herbs—clear from decayed stalks, the beds from weeds, and dig or hoe between the plants where they admit; or in some of close running growth, as mints, &c. spread some earth over the beds.

Artichokes—need no particular culture till next month.

Asparagus beds—begin the winter dressing (m. 1.) by cutting down and clearing away the stalks of the plants now done growing; hoe off all weeds into the alleys; then mark out the proper width, and proceed to dig each alley along regularly between the beds; bury the weeds in the bottom as you advance in the digging; and, as you proceed, spread a good proportion of the earth evenly over each bed with the spade.

——— Manure to old asparagus beds will be beneficial once in two or three years, applying it at this season after clearing away the stalks and weeds as above, using principally rotted dung, laid both on the beds and alleys; fork it into the beds moderately, and with the spade dig in that of the alleys, spreading some of the earth thereof over the bed regularly as you advance in the digging.

——— *The young seedling asparagus*—remaining in the seed-beds, need only the weeds and decayed stalks of the plants cleared away (m. l.); or may also spread a little short dry dung over.

——— *Asparagus to force*—may be planted in a hotbed (three year old plants) for a second or first winter crops [See SEPTEMBER and NOVEMBER].

Beans—plant a small crop of mazagans in a south border (l.) in a row close to the wall, &c. or in cross rows; and for transplanting may sow some thick in a bed of light mellow earth, towards (l.) this, or any time next month, there being many together within a small compass, they can readily have the occasional protection of a frame, &c. in winter, when severe weather, to preserve them more effectually in good condition to transplant in proper order towards the spring. [See NOVEMBER.]

Broccoli or borecole—of the advancing crops, hoe and draw earth to the stems, and finish planting out any remaining young plants (b.) for spring.

Early summer planted broccoli or borecole—the former will now begin to produce some small or middling central flower-heads, in the manner of cauliflowers, for present use, and successionally in winter, &c. the borecole will be of full growth, in large spreading open heads of fimbriate-curled leaves, to gather occasionally at this season, and in winter for open greens; and the stems remaining will produce a plentiful secondary crop of fine sprouts.

Cabbage plants—of the August-sowing, finish pricking some in nursery-beds, and some of strong growth plant out finally for the early crop; the rest not till the spring; or pricked in beds till that season.

Red cabbage and red beet roots—are of full growth for use as wanted.

Savoys—the main crops will now be finally cabbaged for general use.

Cardoons—finish landing-up fully, at least eighteen inches to two feet, or more.

Carrots—the main crops now at full growth dig up (m. l.) either in part or wholly; cut off the tops close, then deposite them in dry sand in alternate layers under cover, ready for use in winter.

Carrots—Clean and thin young carrots, of the August sowing for spring.

Cauliflower plants— the August sowed, for next year's early and main crops, should now be planted and pricked in places of occasional shelter for the winter.

———————— Plant out some strong plants finally (m. l.) in some best mellow, well-dunged ground, under protection of hand-glasses placed a yard asunder in the row by three feet and a half between the rows, planting two or three under each glass; or may plant five or six, to remain for protection till the spring; then thin and plant them out, retaining two of the best under each of the glasses to acquire early maturity.

———————— The rest of the young plants prick now either in frames three to five inches apart, to be defended with the frame glasses occasionally in bad weather, and of nights to remain thus for final transplanting in the spring; or some may now be pricked in beds, to cover occasionally with mats in winter, and others pricked in a warm border; all to remain for final spring planting in March, &c.

———————— July-planted for the present autumn crop, will now be in production.

Celery—of advanced growth, earth-up fully, and plant out large crops for spring.

—— Earth up as it advances in growth.

Colworts—finish planting the principal winter and spring crops.

Cresses, mustard, &c.—for sallading sow in warm borders, and under frames, or hand-glasses, towards (l.)

Cucumbers—will now be mostly past production, unless they were defended in September with frames and glasses, or those planted in a hotbed; or, if young plants were raised they may now be planted in a hotbed, (b. m.)

Endive—tie up every week some full grown plants, and plant the last crops in warm dry south borders, or raised banks.

Garlick and shallots—may be planted (m. l.) in dry ground for next summer, to come in earlier and stronger than the spring planted.

Horse-radish—in plantations of one or two years growth or more, will now be advanced to eligible size and perfection to dig up as wanted; dig a trench along the outside row, to the bottom of the upright root-shoots; cut them off level to the old stools, leaving these undisturbed for future production; and turn the earth over them to a proper depth, or cover in with the earth of next trench.

Leeks—finish planting (b.), and hoe advanced crops to kill the rising weeds.

Lettuce—thin the autumn sowed young plants moderately, and plant out some of different sorts of the first raised on warm borders (b. m.) for winter and early spring sallads, leaving also a few in the seed-beds; of the younger lettuce plant or prick a quantity (m. l.) in south borders and warmest quarters, to remain wholly for spring, &c. likewise of the last sowed, prick some cos kinds in frames or beds, to have the shelter of glasses or mats in winter, for spring and early summer crops; plant some also under hand-glasses.

———— Plant also some strongest lettuce plants in warm borders or frames, for transplanting into hotbeds in winter for forcing.

Love apples (ripe)—gather some in bunches to house for future use.

Melons—late ripening defend now constantly with glasses, &c.

Mint roots—may be planted in drills and beds. [See NOVEMBER.]

Mushroom-beds—if omitted making before, may still be made, and continue them constantly covered with straw and mats. [See SEPTEMBER.]

———— When mushroom beds are in production, look over them often, to gather the produce while young; covering the bed again directly.

Onions—the young winter crop will now require a very careful hand-weeding; not thinned.

—— Turn over the housed keeping bulbous onions, and pick out any that are decayed.

Parsley grown rank—cut down close (b. m.) to shoot out afresh before winter.

Large rooted parsley—is now in perfection to take up for use as wanted.

Parsneps—are now in good perfection.

Peas—the early hotspurs, &c. may be sowed (1) i a warm border, for the first early crop next summer.

Potatoes—acquired full growth, should be wholly digged up with forks (m. l.) and housed to keep for winter and following spring, &c. [See NOVEMBER.]

Jerusalem artichokes—are now of full growth to dig up for use as wanted; or take up a quantity to house for winter (m. l.)

Pot-herbs, &c.—may be planted by rooted plants, or slipping and parting roots; such as mint, penny-royal, balm, tansey, tarragon, sorrel, burnet, cives, fennel, &c. also rooted full plants of sage, thyme, hyssop, savory, rue and rosemary: they continuing green for use all winter.

——————— The young pot-herbs raised this year may be transplanted finally (b.) where they are to remain.

Radishes—may be sowed (b.) to draw young the two following months.

Small sallading—of cresses, mustard, radish, &c. sow on a warm border, or under hand-glasses or frames (l.)

Salsufy, scorzonera, and Hamburgh parsley roots—are now in good perfection.

Spinach—winter crops, clear well from weeds by hand or small hoeing, and thin the plants moderately.

Strawberry-beds—which have not yet had the autumn dressing, should now have it completed according to the directions in September.

———— Also strawberries intended to be planted this season, should now be done as soon as possible, as directed last month.

———— For forcing, if not already done, may plant strawberries in pots, two years old plants of a proper growth for immediate bearing, in the ensuing forcing season, transplanted with balls into the pots. [See SEPTEMBER, &c.]

Thyme, sage, savory, winter marjoram, rue, and hyssop—may still be planted (b.) in rooted full plants; removing and planting them, with balls of earth to the roots, and they will be ready for occasional winter use.

Turnips—latest crops finish hoeing and thinning (b.) about six inches asunder.

FRUIT GARDEN AND ORCHARD.

Wall trees will still require some attention to nail in any projecting shoots, to admit all possible benefit of the sun, to forward the ripening and flavour of late fruit, of peaches, grapes, plums, &c.

Likewise in this month, many sorts of the autumnal eating and winter fruits, of apples, and pears, &c. will require general gathering.

Planting and winter pruning—may also be commenced this month (m. l.) in several sorts of fruit tree, but for general planting next month is also an eligible season for all sorts of fruit trees.

Orchards of fruit trees designed for planting—begin to prepare the ground, making choice of a proper situation, and eligible fertile soil, not too low and wet, nor of a very gravelly or clayey nature, but of a moderately dry mellow temperament, in which, may either dig the ground along five or ten feet wide for each row of trees, or only dig proper holes ready for planting them: or if an unfavourable soil, or of an uncultivated state, it may be improved by adding manure of rotten dung and good fresh earth, and digging it in of some considerable width where each tree is to stand, ready for early planting next month, as observed in the preceding page.

Prepare for planting—borders intended for wall tress and espaliers, by digging or trenching one or two spade deep, especially for any general plantation; adding also, if judged needful, occasional ammendment of manure and fresh fertile earth, or good loamy compost; more particularly where a poor light soil, in which some rotten dung, mellow loam, or other fresh good earth is eligible, either wholly, or at present only in the places for the trees; also for standards, if the ground is unfavourable, and improvement is thought requisite, give amendment in the same manner; however, it is necessary to observe, that fruit trees may be planted in any common, or tolerably good ground, of a garden, orchard, or field land, &c. without any or much amendation besides the general good culture of the ground.

Wall tree planting—may be commenced occasionally (b. m. l.) in apricots, peaches, nectarines, plums, cherries, and pears done growing, and the leaves decaying.

Planting espaliers—where intended, may be proceeded in towards (m. l.), in apples, pears, quinces, &c. done growing, as observed of the wall trees.

Standards likewise may be planted—toward (m. l.) of apples, pears, cherries, &c. agreeable to the above observations.

Planting fruit trees—may be commenced towards (m. l.)

or when the leaves are beginning to decay, which imply that the trees are done growing; there is much advantage in early autumn planting.

Winter pruning—may begin occasionally in early wall trees (l.), if the leaves are fallen; though next month is time enough to commence that business generally.

Sow plum and cherry stones—to raise stocks for budding and grafting.

Fruit is now ripe, or at mature growth—for gathering in more sorts, both in wall trees, espaliers, and standards; as peaches, figs, grapes, some late nectarines, many sorts of plums, pears, and apples, also medlars, quinces, some late cherries, currants, filberts, hazel-nuts, and the main crops of walnuts, chesnuts, &c. of which different fruit some are proper to gather principally for present eating, others for keeping a short time, and some all winter, and till next spring and summer; as many sorts of winter apples and pears, particularly.

All stone fruits—now remaining on the trees, as peaches, plums, &c. will ripen fully this month for present eating, but will not keep long after being gathered.

The kernelled fruit, &c.—of the late kinds for winter, now remaining on the trees, &c. will all attain full maturity for gathering this month; as apples, pears, medlars, quinces, services, and berberries.

Gather apples and pears—both of the autumnal sorts (b.), for present supply, and to house for keeping a short time; and all the winter kinds (m. l.); some for immediate use, but the greater part for keeping several months, and to acquire mature ripeness as they lie in the fruitery, in which many of the eating winter pears in particular require to lie one, two, or three months, or more, in several different sorts, to acquire proper mellowness; and some till spring; continuing good till April and May, &c. But for baking, stewing, &c. any sort may be used both for immediate occasions and as hereafter wanted during their continuance: likewise, many sorts of principal apples continue in perfection all winter and spring, and some till May and June.

The maturity of the fruit—or full growth on the trees in apples and pears, is discoverable often by their easily quitting the wood, or frequently falling; and in many of the summer and autumnal sorts particularly by changing yellowish, &c. or becoming mellow, though this does not occur in many of the winter kinds; and all sorts designed for keeping, should be gathered before mellow ripeness.

To gather apples and pears, &c. for keeping—they should be mostly plucked by hand, not to bruise them, which would be unavoidable if shaken down.

——————————— Carry them, as gathered, into some dry apartment, each principal sort together in a heap, to remain several days to sweat and discharge the watery moisture, which prepares them better for keeping; then being wiped dry, they should be deposited in the fruitery, &c. upon shelves or other compartments, each sort separate either in single layers, or if straitened for room, several layers one upon another; and, if thickly covered with clean dry straw, to exclude the external air, damps, wet, and frost, they will keep in greater perfection for use as wanted.

——————————— They should be occasionally looked over, to pick out any that casually decay.

Quinces and medlars—now at maturity (m. l.) should be gathered and housed for keeping.

——————— laid in moist bran, to forward their peculiar softness, requisite to render them eatable.

Walnuts and chesnuts—being now fully ripe, should be gathered both for present supply, and for keeping; they are of full maturity when the outer husks begin to open naturally, ready to discharge the nuts.

Services will be ready to gather—house them, to become soft and mellow for eating (l.)

Berberries now ripe—may be gathered for preserving, &c.

Peaches and nectarines, late ripening on wall trees—still require all possible assistance of the sun; and should have all the shoots of the trees trained in close and regular to the wall, to admit the sun freely to the fruit.

Grapes ripening—demand attention, to assist them with the full benefit of the sun, not suffering any improper shoots, or others of projecting growth, to shade them; but cut away all useless after-productions, and nail in the proper shoots close to the wall.

——— *lately ripe*—may be gathered (m. l.); cut with part of the shoots, and hang them up on lines in some dry warm apartment; they will improve and continue good some considerable time for eating as wanted.

——— *Defend ripe grapes*—from birds, either by netting them, or by bagging the bunches separately in gauze, crape or paper bags (b.); but the two former, where attainable, are preferable to paper for this occasion.

Ripening wall fruit—as plums, pears, &c. should also have the same care as the peaches and grapes; continue the shoots nailed in close, to admit the full sun.

Gooseberries, currants, and raspberries—may now be planted (b. m. l.)

Cuttings and suckers—of gooseberries and currants, &c. may now be planted (m. l.)

Fruit trees for forcing—plant (m. l.) in hot walls and other forcing departments; as peaches, nectarines, apricots, grapes, plums, cherries, figs, &c. mostly such as are advanced to a proper age for immediate bearing, or if in pots, or transplant with full balls to the roots, may be forced the ensuing season, or otherwise the year after.

FLOWER GARDEN AND PLEASURE GROUND.

In this month the several compartments of the flower garden, pleasure ground, &c. should be prepared, in the best order, to remain clean and neat for the winter season; and in which may commence general autumn planting in many sorts of plants, roots, shrubs, &c. required.

Clean all parts—of the flower garden, pleasure ground, shrubbery, &c. cut down and clear away decayed flower stalks; hoe, and rake the beds, borders, &c. prune, hoe, and rake shrubberies, grass lawns, plants, &c. finish mowing now close and even; gravel walks, clean well from weeds; and cut and trim all edgings and edges even and regular; that the whole may remain in neat regular order for the winter.

Preparations for planting—should now be forwarded, by digging vacant beds and borders for bulbous roots, and various fibrous rooted flower plants; also compartments for shrubbery planting.

Dig vacant beds, borders, &c.—to remain clean, and be ready for roots and plants intended.

Beds and borders—clear now from decayed flowers, weeds, and litter; hoe, rake, clean, or dig those that are vacant, ready for planting, &c.

Edgings—finish cutting; and may plant edgings of box, thrift, daisies, strawberries, &c.

Box edgings—finish entirely all clippings (b.), before the frost sets in.

Box edgings—New box edgings may be planted—having for this occasion some short bushy box, slip it moderately small, with roots to each slip; prune the long roots and tops even; then make up the edge of the border firm and even at top, and with the spade cut out a small trench along the edge of the bed or border, making the inside upright, in which against the upright side, plant the box low and close together, to form at once a regular edging; earth it in near to the top, and tread down the earth even.

——— *Old box edgings deficient or in gaps*—should be made good by fresh box in a regular manner.

Thrift edgings—may be planted, setting the plants either close, or only two, or three inches apart; having for this occasion a proper supply of good fibrous-rooted full plants, divide them into smaller slips with roots to each, and either plant in the manner directed for box edgings, close together, to form at once a complete edging, or otherwise make up the edge of the beds or borders full and regular, and plant the sets by dibble along the top, one, two, or three inches asunder, to grow close by degrees.

——— *Old thrift edgings grown disorderly*—may now be regulated by trimming in the sides, and making good any deficiencies by planting proper sets as required; or if very irregular, may be taken up and regulated.

Hoeing and raking—now perform effectually in all beds, borders, and shrubberies, to clear them thoroughly from weeds and litter before winter.

Decayed flower stalks—clear away constantly, as they occur.

Flower plants—still flowering, continue in neat regular order, by occasional trimming, &c.

Planting—may now be commenced in great variety, both in herbaceous and woody kinds; such as most sorts of the bulbous and tuberous-rooted flowering tribes; fibrous and fleshy-rooted perennial and biennial flowers; evergreens, and flowering shrubs; ornamental and forest trees; box and other edgings; and hedges.

——— *in borders*—perform principally in patches, three, four, or five together; crocuses and snow-drops nearest the edge.

Planting in pots—may now be performed in any desirable roots, plants, and shrubs, where required, of curious bulbs, perennials, biennials, evergreens, and flowering shrubs.

Planting in pots—Plants formerly potted—the last spring or before, clear from weeds, decayed stalks, and leaves; and fresh-earth at top; or, where it may seem necessary, any may be occasionally shifted into larger pots with some fresh mould.

——— ——— *Remove plants in pots*—to a warm situation (m. l.), for the winter; or place choice sorts, both of herbaceous and woody kinds, in a frame, &c.

Climbing plants—of different sorts, may now be planted, (m. l.) [See NOVEMBER.]

Flowering shrubs—may be planted (m. l.), or when the leaves begin to decay.

Suckers plant—from the roots of roses, lilacs, and other shrubs and trees, for increase where required.

Propagation perform—in shrubs and trees, by layers, cuttings, and suckers; and in herbaceous perennials, by slips, off-sets, and parting the roots.

Seed pots and boxes—place now in a warm situation (m. l.) to remain in shelter all winter.

Seeds of flowers—finish gathering (b. m.)

Annual flower seeds—finish gathering (b. m.) when dry weather.

——— *All annuals done flowering, &c.*—pull clean up, as they do not survive to flower again; except sometimes in India pink, and cuttings of chrysanthemum, if sheltered from cold.

——— *Preserve annuals in winter*—young plants of mignionette and ten-weeks-stock, and cuttings of double chrysanthemums, all in pots, sheltered in a frame or greenhouse, to flower early in the ensuing spring.

Biennial flowers—raised in spring and summer, may be removed with full roots, and transplanted into the borders, &c. where they are to flower; as wall-flowers, stocks, sweet-williams, French honeysuckles, Canterbury bells, &c. or some may remain for spring planting.

Perennial and biennial flower plants—of the fibrous, tuberous, and fleshy-rooted kinds, may be transplanted into beds, borders, pots, &c. all to flower next year.

——————— The young perennials and biennials raised last spring and summer, plant out some of the strongest plants thereof in the borders, &c. to remain.

Seedling biennials and perennials—raised this year, and pricked in nursery beds, plant out some finally into flower borders, beds, pots &c. and the rest in spring.

Fibrous-rooted perennials—may be planted in young or old plants; and may propagate most sorts by off-sets, or slipping, or parting the roots.

Divide or part roots—of fibrous-rooted perennials for increase.

Part roots, or slip off-sets—of perennial flowers, to propagate desirable species and varieties.

Slip roots or side off-sets—of perennials, to plant for increasing any desirable sorts.

Herbaceous plants—of perennials and biennials of most sorts may be planted.

Autumnal planting—may be performed in most bulbous, tuberous, and fibrous-rooted flowers, to blow next year; and in many tree and shrub kinds.

Bulbous and tuberous roots—may now be planted of all the hardy sorts, for the main blow next year; as hyacinths, tulips, jonquils, narcissus, gladioles, bulbous and tuberous irises, crocuses, snow drops, &c. some retained to plant in a month or two after, or towards spring for successional flowering; all planted in beds, borders, and some in pots.

——————— In planting them in beds, set them six to nine inches asunder, two or three inches deep; small roots only two inches deep, and six inches asunder.

Transplanting bulbs—that have remained in the ground, is not proper at this season for general practice, only where particularly required, or to part them when grown into large bunches, and immediately replanted; but the general removal of the choicer kinds of bulbs should be principally done in summer, &c. soon after flowering, otherwise it is apt to prevent their blowing in full perfection the ensuing year.

Autumnal bulbs in flower—protect the tender sorts from rain and cold; as the Guernsey and Belladonna lily; or any in pots may be placed in a frame or green-house, &c.

——— *Bulbs of lilies, crown imperials, and fritillarias*—should be mostly all planted, especially all the scaly-rooted kinds of lilies, &c. that were taken up in summer or autumn, after they were done flowering; for these sorts do not keep well long out of the ground, like solid bulbs.

——— Or where any white or other lilies are unavoidably or occasionally taken up at this time, it is advisable to plant them again as soon as possible, otherwise it will retard the flowering in perfection next summer.

——— *All off-sets of bulbs*—finish planting (b. m.)

Plant bulbs in water-glasses—as dwarf tulips, hyacinths polyanthus-narcissus, jonquils, &c. to flower early in house, placed in a light room, or near the windows.

——————— Or may also plant full bulbs in pots and water-glasses, placed in a green-house, to forward their flowering, or for forcing in a hot-house, &c.

Gravel walks—still continue in neat order, by weeding, sweeping, and rolling.

Rolling—still continue in gravel walks once or twice a week, and occasionally to grass.

Sweep gravel and grass—from falling leaves, &c.

Leaves falling—constantly sweep and rake off from gravel, grass, &c.

Turf for grass work—in plats, walks, lawns, &c. may be cut and laid; beat and roll it down close and even.

Edges of grass—cut close and even.

Grass lawns, &c.—should now have the finishing mowing; cut nearly close and even, and occasionally pole and roll.

——————— Grass turf may be laid. [See *Turf*.]

Lay turf—where wanted, either for new, or repairing old work.

Pole and roll grass—to have a clean firm surface.

Hedges—omitted clipping, finish wholly (b.); and may plant hedges both of evergreen and deciduous kinds, (m. l.) [See MARCH.]

Privet—being of quick, close, neat growth, may be planted for garden hedges, &c.

Haws—gather, and sow for quickset hedges.

Aconite (winter)—a small bulbo-tuberous root, plant in the edge or front of a border, for early flowering in January or February, &c.

Anemones and ranunculuses—plant now for early spring flowering, in rows six inches asunder, and two deep.

Auriculas and carnations in pots—remove to a warm border, or the choice sorts into a frame (m. l.) to have occasional shelter in winter, from severe frost and snow, and excessive rains; but expose fully to the free air in open dry mild weather.

——— Finish planting auriculas and carnations, in pots or borders, &c.

Carnation layers—finish planting some best kinds, either singly in small pots till spring, or at once into large ones to remain.

Carnation layers—also plant some in the borders, &c. likewise seedlings.

Christmas rose and cyclamen—being curious early flowering perennials, if of low growth, may be planted in warm borders, and in pots.

Chrysanthemum cuttings—finish planting in pots, (b.) [See SEPTEMBER.]

Daisies—may be planted, and roots parted.

Hyacinths—may be planted in beds, borders, bulb, water-glasses, pots, &c. [See *Bulbous Roots.*]

Lilies—scaly bulbous kinds, should be mostly finished planting. [See *Bulbous Roots.*]

Mignionette in pots—remove under shelter (m. l.)

Pipings of pinks, &c.—finish bedding out (b.) to remain till the spring; or some of the largest early struck, may be planted in the borders.

—————— Or strong plants of pinks raised this or last year, may be planted out now in borders, pots, &c. to remain for flowering; and may slip or part roots of some stock kinds, in rooted sets; and plant for increase.

Polyanthuses—plant and propagate by parting the roots, or by detaching the outward off-sets.

Stock gilliflowers—finish planting (b), finally to remain and plant some best Bromptons in pots, to have shelter in winter.

Tulips—plant now, for the principal blow in spring and summer. [See *Bulbous Roots.*]

Wall flowers—plant out in borders; and double bloody kinds in pots, to have shelter in winter.

Shrubberies—prune rude shoots, and hoe and rake the ground.

——— Dig and prepare the ground, for planting any shrubs and trees required; evergreens at any time, and deciduous kinds (m. l.)

Prune shrubs, &c.—from irregular strong shoots, and others of disorderly growth.

Tree planting—may be performed in most sorts of evergreens (b. m. l.), and deciduous kinds principally towards (m. l.)

Deciduous shrubs and trees—may begin planting in most sorts, (m. l.)

Forest and ornamental trees—may commence planting (m. l.)

Evergreens—may be planted of all the shrub and tree kinds; as laurel, Portugal laurel, laurustinus, arbutus alaturnus, phillyrea, arbor-vitæ, pines, firs, cedars, cypress, &c.

Evergreens—Tender evergreens—plant in warm situations; as evergreen magnolia, arbutus, kalmias, rhododendron, tea-tree, Chinese arbor-vitæ, broad-leaved myrtle, &c. and small young kinds of these and other tender sorts, plant in pots, to move under shelter in severe weather.

——— *Lay evergreens*—whereby to propagate some particular sorts, which finish principally this month. [See NURSERY for SEPTEMBER.]

Lay shrubs and trees—in the young shoots, both of evergreens and deciduous kinds; and plant off the former rooted layers of last autumn and spring, or the preceding summer.

Cuttings—may be planted of hardy shrubs and trees.

Gather tree seeds—for sowing of acorns, ash-keys, beech-mast, lime-trees, chesnuts, walnuts, and haws; and of other seeds, berries, nuts, &c. now ripe; also flower seeds of annuals, biennials, &c.

Cover walls—that are naked or unsightly in forecourts, &c. by planting laurel, phillyrea, alaturnus, pyracantha, laurustinus, &c.

Arbutus—a fine evergreen flowering shrub, ornamental in its beautiful strawberry-like fruit at this season, may now be planted in a warm dry situation.

Laurel and laurustinus—two noted hardy evergreens, and ornamental flowering shrubs, the latter of which flowers numerously in long continuance in spring and autumn, may now be planted in shrubberies, or occasionally to cover any naked walls, &c. and for other similar purposes.

Lombardy poplar—a tree of very expeditious growth, for shade, shelter, blind, &c. may be planted; but would not advise such a general planting of this tree as has lately occurred, especially in small gardens, forecourts, &c. being detrimental to the under plants, flowers, and shrubs, as well as sometimes rather unsightly in such situations, when in advanced large tall growth, and without any variety of other more beautiful and valuable trees; though in particular situations, may be employed occasionally to form a speedy shade, shelter, or blind, &c. and in plantations in assemblage with other different sorts for variety.

Magnolia—a superbly fine evergreen exotic, may now planted, allotting it a warm sheltered situation, it being of a tenderish nature in winter, when severe frost.

Pyracantha or evergreen thorn—very ornamental in its numerous bunches of red berries in winter, may now be planted; it being of feeble growth, is generally planted and trained against a wall or building; also in the shrubbery supported with stakes, and the straggling branches pruned a little occasionally, to form a somewhat bushy head.

WORK IN THE NURSERY.

In the nursery work of this month is comprehended a great deal of principal business in preparing for and proceeding in the autumn planting and transplanting of many sorts of young trees and shrubs, and in the works of propagation by seeds, cuttings, suckers, and layers; for which occasions the ground must be got ready by digging or trenching, &c. also perform several other necessary works of culture.

Planting—may now be proceeded in successfully in most sorts of trees and shrubs, where it is necessary or intended; evergreens may be transplanted any time in the month, but the deciduous kinds, more generally towards (m. l.), when declining in growth, and the leaves decaying.

——— Many sorts of seedling trees and shrubs from seed-beds, &c. into the nursery quarters: in rows one to two or three feet asunder, or pricking smaller plants in nursery beds in rows at less distances; and likewise in transplanting some that have been formerly planted out from seed-beds, &c. at small distances in their young growth, which being now much increased in size, require a larger scope of room in rows more distant: as also in planting such particular sorts in pots as may be required, especially some more tender or curious plants.

Prepare ground for planting—by proper digging or trenching, both for the immediate reception of young trees and shrubs, cuttings, suckers, seeds, &c. and some to remain, if thought necessary, to mellow and improve by the weather, for future planting in the following month, or spring; for which it would be proper to dig the ground up in rough ridges to meliorate more effectually; and may be levelled down when wanted.

————— *Likewise* prepare some ground now in *beds*—three or four feet wide, in which to prick some small plants, cuttings, &c. also for sowing tree and shrub seeds.

Planting—out fruit tree stocks—(m. l.) of seedlings and others, into the nursery quarters in rows at two to three feet distance, to remain to attain proper growth of one, two, or three years, for grafting and budding.

——————— *young forest and ornamental trees and flowering shrubs*—such as want removal from beds and other compartments where they are too close or much crowded, transplanting them in rows at proper distances; some of the smaller seedling plants, and others of slender growth, may be bedded out in rows six inches to a foot asunder; and the larger kinds planted in the quarters in rows at eighteen inches to two feet and a half, and about half that distance in the lines.

——————— *evergreens*—may be performed any time this month in most sorts of young trees and shrubs, on the different occasions before intimated, both of seedling plants and others raised from cuttings, layers, &c. of smaller or larger growth, as occasion may require; such as pine trees, firs, cedars, cypress, laurels, laurustinus, Portugal laurel, phillyrea, alaturnus, arbutus, and many others; planting them in rows at proper distances, agreeable to the intimations before mentioned

——————— *the tenderer evergreens*—plant in defended warm dry situations, such as magnolia, arbutus, and several others of similar quality. Likewise plant some in pots, of the more tender or curious sorts of evergreens, such as arbutus, magnolia, kalmias, olives, candleberry myrtle, Chinese arbor-vitæ, rhododendron, and some other less hardy exotics, for removing in their respective pots, to places of occasional shelter in winter.

——————— *also in pots*—may now plant any desirable or curious sorts of hardy evergreens and flowering shrubs, dwarf-fruit trees, and any curious or particular sorts of herbaceous perennials.

Plant young fruit-trees in pots—(m. l.) for forcing; such as peaches, nectarines, apricots, cherries, plums, figs, vines, &c. any sorts of dwarf fruit trees, either for curiosity, or forcing, or for other occasions, as may be required.

Sow tree and shrub seeds—principally of the hardy kinds; such as oak acorns, beech-mast, maple seed, haws, hips, yew-berries, and many other sorts; also plum and cherry-stone, for stocks; all sowed in beds of light earth, one or two inches deep.

Sow plum stones for stocks—on which to bud and graft the principal sorts; also for stocks on which to bud peaches, nectarines, and apricots; and may occasionally plant plum-tree suckers for stocks; or any particular sort of plum-stock, as the muscle plum, is more certainly obtained genuine by layers, this sort being sometimes preferred on which to bud some particular principal sorts of peaches, nectarines, &c. though they will mostly all succeed effectually upon any sort of plum-stocks, as will also the different varieties of plums.

Propagate by layers, cuttings, and suckers—many sorts of trees and shrubs, both of evergreen and deciduous kinds.

Make layers of evergreen shrubs—of several hardy kinds; such as phillyrea, alaturnus, laurustinus, &c. only in the young shoots of last summer.

Take off evergreen layers—that were layed last autumn, spring, or summer, and now rooted, and plant them in the nursery; or plant some curious or tender kinds in pots.

Lay deciduous trees and shrubs—(m. l.): numerous sorts may be raised by that method; as elms, maples, limes, &c. choosing for that occasion the young shoots of last summer; cut a small gash on the under side, which lay into the earth three or four inches deep, raising the top upright several inches above ground; they will be rooted for planting off next autumn.

Plant off layers—of the above, or former laying, that are now well rooted.

Plant cuttings—of several sorts of trees and shrubs; such as laurel, Portugal laurel, poplar, plane-tree, limes, alder, honeysuckles, currants, gooseberries, &c. of the young middling strong shoots of the last summer.

Plant suckers—from the roots of roses, lilacs, gooseberries, currants, raspberries, and of many other sorts of trees and shrubs.

Prune—every sort of trees and shrubs where required; both in evergreens any time in this month, and deciduous kinds principally (m. l.), when the leaves decay; cutting off all very rude or rank shoots from the stems, and rambling disorderly growths of the head.

In pruning evergreens—it is advisable to complete what is necessary this month, before very cold weather begins.

Pruning—But deciduous kinds may either be pruned (m. l.) or in the following months.

Young wall trees for training—plan (m. l.) against walls, pales, or reed hedges.

Eradicate weeds—now with the utmost diligence (b.m.), before cold wet weather sets in, by hoeing and hand-weeding at all opportunities in dry days.

Remove pots of tender plants—to warm situations (m. l.) for the winter; or place some more tender sorts of evergreens, &c. in frames or awnings, where they can be occasionally sheltered from severe frost.

———————— Other trees and plants in pots, place in some dry sheltered situation; and (m. l.) or next month, plunge the pots in the ground, to protect the roots more securely from frost.

THE GREEN-HOUSE.

In this month, as cold weather and frosts sometimes prevail, finish removing all the plants into the green-house (b. m.), especially the tenderest kinds.

Oranges and lemons—and other tenderest exotics not taken in last month, remove into the green house (b).

The hardier kinds—as myrtles, oleanders, winter cherries, geraniums, &c. may remain abroad till towards (m.) if fine weather; but after that time, or before, if cold or very rainy, house them as soon as possible; at any rate, take them all in before (m.)

Succulent plants—finish taking in all tenderish sorts (b). American aloes, and all others (b. m.)

Previous to removing into the green-house— clear off decayed leaves, dead shoots, &c. and prune irregular growths; weed the pots, loosen the top earth, and thoroughly wash and clean the heads.

In disposing the plants in the green-house—station the taller sorts more or less back, and the lower plants forward, having the small plants in front.

Small plants of myrtles—and other green-house plants of similar temperature, if not room in the green-house, may be placed in deep garden frames, or in a pit defended with frames and glasses.

Fresh air—must now be admitted freely every day or night, if mild weather, till (b. m.); then keep close every

Water—give now very moderately once a week to the oranges, lemons, myrtles, and other woody kinds; the succulents more sparingly.

HOT-HOUSE AND STOVE.

As the cold season is now approaching, the bark-bed heat in the pinery or general hot-house is not only necessary, but must have a thorough renewal for the winter; and if cold weather (1.) fire heat must be again commenced, continuing to give proper admission of fresh air in warm days, and occasional waterings.

Pine apple plants—requiring to be continued always in the bark-bed, this will now require to be wholly renewed, to have a proper heat all winter, &c.

Bark-bed heat—now mostly exhausted, provide supplies of fresh tan to make entire new beds; screen out the earthy part of the old, and retain only such of it as does not pass through the screen, either levelling it in the bottom; and filling the pit with new tan; or fork up the new and the remaining old bark together; they will soon acquire a proper temperature of heat for the reception of the pots of pine plants.

Succession fruiting pines—the two years old plants, for producing the pine apples next year, must now be removed from the succession hot-houre, or pite, into the main or fruiting pinery; in which the bark-bed being previously renewed as above advised, with entire fresh tan bark, and acquired a moderate heat, plunge the pots of pines therein regularly, the largest behind and the lowert in front, placed in gradual order.

Young succession pines—in bark-pits, or other hot-house appendages, will also now require entire new bark-beds, to carry them over the winter, &c.

———— Or in want of sufficient bark-pit room, some of the young pines may be placed in subctantial dung hot-beds, under frames and glasses; having some old or new tan at top of the bed, six or eight inches deep, in which to plunge the pots; and revive the heat, when declining, by applying strong outward linings of hot dung.

Ripe pine apples—still advancing to perfection in late fruit, save the crowns if wanted for planting.

Admit fresh air—to the hot-house plants moderately every warm day, when sunny and calm.

Water—continue to apply occasionally to the plants in general; but less to the succulent kinds than the others.

Plant suckers and crowns of pines—from old plants and the ripe fruit, for the young succession supplies, [See AUGUST and SEPTEMBER.]

To the hot-house plants in general—give nearly the same occasional culture, as suggested last month in the different sorts, according as it may seem necessary in their various orders of growth.

Fire heat—in the hot house if cold weather towards (1.) begin again for the winter, moderately every evening. [See NOVEMBER.

NOVEMBER.

THE KITCHEN GARDEN.

The business now in the kitchen garden is sowing and planting some few articles for early crops next year: some to force in hotbeds for winter consumption; and to give occasional weeding, and sometimes hoeing to advancing late young crops; also to apply dung, where necessary, and to dig vacant ground.

The business of sowing and planting is inconsiderable at this season; but is necessary in a few articles, both in the open ground and in hotbeds.

Dig—vacant ground, laying it in rough ridges, to fertilize by the weather.

Prepare vacant ground—by dunging where necessary; and digging the ground in ridges, to improve for sowing and planting in the spring.

Trench vacant ground--in two feet wide trenches, one or two spades deep, laying the earth of each trench in a rough ridge, to pulverize and improve by the weather; it may then be expeditiously levelled down as wanted for sowing and planting in the spring.

Manure ground—with rotten dung or such as can be obtained, and apply it where most wanted.

Dung ground—now with attention where most wanted, and for principal crops; dig in only one spade deep.

Advancing young crops—clear from the weeds; winter *onions and spinach* carefully hand weed, and hoe between advancing young crops of coleworts, cabbages, broccoli, savoys, celery, leeks, lettuce, endive, &c. loosening the surface of the earth about the plants, which will beneficially encourage their growth; and the hoeing will also kill many of the slugs and other detrimental vermin lurking in the earth at this season.

Hand-weed—now with good attention, the beds of young winter onions, spinach, and other small plants.

Hoe—in dry days, between advancing crops of coleworts, cabbages, broccoli, savoys, &c. cutting down the weeds; loosen the earth, and draw some about the stems of the plants.

Sow—some early peas and beans, and small sallading; the two former in warm borders, and the latter under glasses or in hotbeds.

Planting—is required principally to finish what was omitted last month, as cauliflowers, lettuce, cabbages, coleworts, celery, endive, garlic, and shallots; a few early beans, and some plants for seed; and in hotbeds to plant asparagus, mushroom spawn, mint, tarragon, and lettuce.

Earth-up—celery and cardoons, and hoe earth to the stems of advancing young cabbages, broccoli, &c.

Pricking out—finish in young cauliflowers, cabbages, and lettuce in their winter beds. (b.)

Seed plants—for producing seed, finish planting; as full headed cabbages and savoys, large carrots, parsneps, red beet, onions, &c. [See OCTOBER.]

Esculent roots—dig up to preserve in sand, for ready use in winter; particularly all the main crops of carrots, some parsneps, red beet, salsafy, scorzonera, black Spanish radish, Jerusalem artichokes, some turnips, and horse-radish: remove the whole under shelter, depositing them in dry fine sand; potatoes may only be thickly covered with straw; they will remain good, ready in all weathers when wanted.

Horse stable dung—provide and prepare in a heap for hotbeds, where required for forcing. [See JANUARY, &c.]

Composts prepared for hotbeds—of rich earth, loam, and rotten dung, all blended together in an oblong ridge heap.

Hotbeds—are required in forcing asparagus, mint, lettuce, small sallading, &c. where these articles are in request in winter.

Plants under frames and glasses—as cauliflowers, lettuces

&c. give the full air every mid-day, but defend with the glasses of nights, and cold cutting weather, and from frost, snow, and great rains.

Artichokes—winter dress; cut down the large leaves and dig the ground in a gradual moderate ridge longitudinally over each row, and close up about the plants, leaving the hearts clear.

——— *Late artichoke heads*—may be cut with the full stalks, and place the stalks in sand under cover, they will continue good.

Asparagus—if omitted in winter dressing last month, finish now by cutting down the stalks, landing up the beds, &c. [See OCTOBER.]

——— And if manure is required to old asparagus beds, apply it now, as directed last month.

——— *Asparagus to force for winter*—plant in hotbeds, such as have been transplanted two, three, or four years, of proper age and strength to produce good shoots; make a substantial hotbed for one or several three-light frames, about a yard high, and two or three inches wider on each side than the frames. For each frame have several hundred plants or asparagus roots; for in hotbeds those plants should be placed as close as they can possibly be crowded together, in order that the bed, according to its extent, may afford a sufficient production at each gathering, either for private or public supply, equivalent to the trouble and expence of forcing.

——— Having procured the requisite quantity of plants, and the hotbed made according to the foregoing dimensions, for one or more frames lengthways, proceed directly to planting, but do not put on the frames till the violent heat of the bed is abated; first cover the bed at top with rich light earth, six or eight inches thick, raising a small ridge of earth across one end, and against which place the first course or layer of plants very close together to the width of the allotted frame, the crowns upright, drawing a little earth to the lower end of the roots; place more plants against these in the same manner, and so continue with the rest, placing as close together as possible, several hundreds in each frame, keeping the crowns upright, and all of an equal height; then on the outer top edge of the bed, bank up some moist earth close against the outside roots all round, and earth over the crowns only *about two inches* deep for the present; this concludes the work of planting, but do not put the frames on yet, especially if an extensive strong bed.

Asparagus—Observing, that as the bed, if extensive, will probably acquire a violent heat, the frames and glasses must still be continued off till the great burning heat has evaporated, which, if confined, would be apt to scorch or steam-scald the roots: but when become moderate, set on the frames, apply more earth over the crown of the plants by degrees, to the depth of five or six inches or more in the whole, and put on the glasses, opening thom an inch or two occasionally, to admit air and give vent to the steam rising in the bed. See the directions following; and the different months for the farther management.

——— The bed, if it works favourably, will begin to yield a production in a month or five weeks, and continue about three weeks in production; so that to have a regular succession, a new hotbed must be made and planted anew, as before directed.

In former made asparagus hotbeds—where the buds are advancing, give air, and keep up the heat of the beds, by a lining of hot dung to the sides, and cover the glasses every night with mats or straw litter.

——— Gather asparagus in hotbeds when the shoots are two or three to four or five inches long. [See DEC.]

Beans--plant some mazagans (m. l.) on a warm border, either for the first or succeeding early crop; or sow some also thick in a bed, to be sheltered from frost, for transplanting towards spring, when of one or two inches growth. [See OCT.] Likewise plant some long-pods in a border or quarter, to succeed the mazagans in bearing.

Beet (red rooted)—dig up some to preserve in sand, &c. under shelter from wet and frost.

Broccoli and borecole—are now in perfection in the autumn crops. [See OCTOBER.]

Cabbages and coleworts—finish planting out all that are intended before the spring.

Savoys—are now excellent in fine full heads.

Cardoons—earth up finally (b.); some will now be blanched for use. [See SEPTEMBER and OCTOBER.]

Carrots—of the main crops, finish digging up (b.) to preserve all winter in sand, &c. as advised in October.

Cauliflower plants—the autumn and winter cauliflowers, planted in July, will now be in full production.

——— omitted planting under hand glasses and pricking in frames, &c. last month, perform it (b.) this, according to the directions in October; and admit the free air every mild dry day.

Celery—land or earth-up the full grown crops near to the top; and others in advancing growth, in proportion.

——— Finish planting late celery in shallow trenches.

Coleworts—finish planting for the spring crops, [See AUGUST and SEPTEMBER, &c.]

Cucumbers—where any in hotbeds give air daily, in moderate weather keep up the heat by linings of hot dung and cover the glasses at nights. [See JANUARY and FEBRUARY.]

Endive—continue tying up the leaves of full grown plants in open dry weather to whiten; also transplant some full plants into the south side of a raised bank of dry light earth, defended with a frame in severe and very wet weather, &c. to preserve them more effectually for future blanching.

——— In a similar bank of earth, may plant a quantity of endive (b. m.), in the common method, though only about five or six inches asunder, to stand the winter, and for spring supply, covering with a frame, mats, &c. in severe weather.

Garlic and shallots—finish the autumn planting (b. m.) for early maturity next summer. [See FEBRUARY.]

Horse-radish—dig up some to lay in sand, ready for use in case of hard frost. [See OCTOBER.]

Lettuces—finish pricking young plants in frames, hand-glasses, and warm borders (b.) for spring. [See OCT.]

——— To lettuces under glasses, &c. give air freely in dry mild days.

——— *Plant lettuces in hotbeds*—large plants to cabbage in winter; or in want of hotbeds, may put in some strong plants in natural beds, under frames and lights.

Mint—may now be planted by roots in drills, for next spring and summer production, and for several years to come: draw drills six inches asunder, place the roots along the bottom, and earth them over.

——— And may also plant some mint roots in a hotbed, to obtain young green mint the present season, or all winter.

Mushroom beds—may be made, if omitted before; and continue the whole constantly covered thick with straw, and mats over that, secure from wet and cold. [See SEPTEMBER.]

Onions—carefully finish weeding the young winter crop, not thinned, except a few of those advanced in growth for present use.

Parsley—if any remains rank, cut down (b.) to shoot up afresh before the approach of severe weather.

Parsneps—dig up a quantity (b.) to preserve in sand, &c. under cover, for ready use in winter.

Peas—early hotspurs, may be sowed in warm borders, (b. m.) either for the succeeding or first early crops

Potatoes—finish digging up wholly (b.), and house and cover thick with straw.

Jerusalem artichokes—now in perfection, should dig up a quantity before hard frost prevails, to preserve in sand, or under cover, ready for use when wanted.

Pot-herbs—finish cleaning the beds. [See SEPTEMBER and OCTOBER.]

Radishes—some short tops may be sowed in a warm border, (m. l.) [See DECEMBER.]

Small salading—sow either in a warm border under hand-glasses, or in a frame or hotbed.

Spinach—finish clearing effectually from weeds; and some may be gathered, either by thinning where thick, or take only the larger outer leaves.

Strawberries—intended for planting this year, finish (b.) and clean the old beds. [See SEPT. and OCT.]

——— Plant strawberries in pots for forcing, where intended, as advised in September and October, if not then done.

FRUIT GARDEN AND ORCHARD.

In this month all late fruit may be gathered (b.) and general autumn planting and winter pruning must be commenced in all sorts of fruit trees

Borders intended for planting wall trees and espaliers—if any improvement is required, apply dung, fresh loam, &c. either wholly, or only for the present where each tree is to be planted. [See OCTOBER.]

All fruit trees for planting—may be had at the nurseries, either young or of advanced growth for immediate bearing in the proper season.

For planting—this is an eligible season for planti all sorts of wall and espalier fruit trees, as also for of standards; and it will be of particular advantage to complete the principal supplies now, that are intended for planting before the spring.

Wall tree planting—may be performed in peaches, nectarines, apricots, plums, cherries, pears, figs, and vines, allotting a principal supply for south walls of the choicest kinds, and for earliest fruits; others on west and easterly aspects, and also some plums, cherries, and pears, on north exposures.

Wall tree planting—the proper distance for planting wall trees is from fifteen to eighteen feet, for peaches, nectarines, apricots, plums, cherries, and vines; and from eighteen to twenty feet for pears and figs, and where the walls are of some tolerable height, may plant between the common dwarf wall trees half standards, to cover the upper parts of the wall. [See OCTOBER.]

General winter pruning—may be performed in wall-trees and espaliers, and to standards where needful.

The winter pruning—may now be forwarded in wall-trees and espaliers, and to standards, where occasionally wanted; but in wall trees and espaliers, a winter and summer pruning is necessary every year, to preserve the requisite regularity, and promote fruitfulness; and as the summer pruning comprises a regulation among the shoots of the year only, the winter pruning is necessary to regulate the general supply of young wood retained in summer, and also occasionally in the older branches.

Espalier trees—plant of apples, pears, quinces, medlars, plums, cherries, and mulberries, from fifteen to twenty feet asunder; and place stakes or rails, on which to train the branches.

For standnrd trees—to plant in gardens and orchards, the proper sorts are apples and pears in large supplies; and next of plums and cherries; also some medlars, quinces, and services, in smaller portions; and a few trees of mulberries: all planted in rows, not less than twenty, or from twenty-five to thirty or forty feet distance: always in the apple collection plant a good supply of codlins, they being great and profitable bearers; and for their early and lasting usefulness in summer and autumn.

——————— Likewise for standards, plant some filberts, and other large hazel nuts, berberries, damsons, almonds, bullaces, walnuts, and Spanish chesnuts; or may so plant filberts, hedgeways, for a shady walk, &c. they ill bear agreeably abundant.

Standard trees—and for moderate standards, may also lant some Breda and Brussels apricots in a warm sheltered tuation.

——— *In orchard planting*—always allot plenty of ples and pears, with a tolerable portion of cherries and ums, and some of all the other fruit; and may plant alnuts outward. [See OCTOBER.]

Half standard fruit trees—may be planted occasionally, secondary supplies or for small gardens.

Dwarf standards—may be planted for variety or curiosity, for small gardens in borders, adjoining walks, &c. they ill bear very agreeably.

Standard tree pruning—is only occasionally necessary to t out casual, cross placed, or crowded and disorderly anches; or to reduce ramblers and low straggling pro- ictions, and to cut out dead wood.

Wall tree pruning—forward in peaches, nectarines, apri- ts, vines, plums, and cherries, to cut out the remaining -placed, useless, and superabundant shoots of last sum- er, and improper old wood.

——— In pruning peaches, nectarines, and apri- te, (they bearing mostly on the young wood of each pre- ling summer) leave a plentiful supply of the best well aced side and terminal shoots, and prune out close, all naining fore-right, improper, superabundant shoots, and rt of the most super-advanced former bearers, and un- itful and unserviceable old wood, to make room for the ung, which shorten about one third, or strong shoots less, d weak ones cut shorter; then nail the whole tree regu- , arranging the branches horizontally three, four, or e inches asunder.

Prune also plums, pears, cherries, apples, &c.—in wall es and espaliers: observing, as these continue bearing eral years on the same branches upon small natural spurs, ain only some best well placed young shoots of last summer, vacant parts, and a leader to each branch, where there is m for the extension, and prune out all the others; also ual worn out, irregular or improper old branches, and dead od; continue all the proper shoots and branches at their l length, and train them in regular to the wall, &c. three four to five or six inches asunder.

——— Generally first un-nail most of the shoots that were trained in the preceding summer, and some of the smaller branches, that you may have opportunity to examine more readily, what are proper to cut out and retain, and to have room to prune with greater accuracy; as also to have an opportunity of after pruning, to arrange the general branches and shoots in regular order.

Prune, &c.—be careful in un-nailing the shoots and branches, previously to strike the nails gently with the hammer to loosen them in their places that they may more easily draw out without breaking the bricks or mortar.

Fig tree pruning—is advisable to defer till February, and divest them now of all the autumnal green fruit. [See FEBRUARY and MARCH.]

Vines—may also be pruned; the last year's shoots are the proper mother bearers; leave plenty of the best in all parts, to train in six or eight inches asunder, cutting out the superabundant and improper, with part of the superadvanced former year's bearers and naked old wood, and shorten the retained shoots to three or four, five or six joints, or some doubly that length, where a competent scope of walling, or to supply a vacant space; then nail in the whole at six or eight, to ten or twelve inches distance.

Suckers dig up—from roots of fruit trees; and plant some for stock; such as plums, pears, codlins, quinces,&c. for grafting and budding with the respective sorts of fruit.

Late fruit—of apples, pears, grapes, medlars, and services, finish gathering (b.)

Keeping fruit—deposited in the fruitery, as apples, pears, medlars, &c. examine to pick out any that decay; cover thick with straw to exclude the air, frost, and damps.

Plant gooseberries and currants—at six to eight or ten feet distance.

Prune gooseberries and currants—cut out any cross-placed and crowded branches, and reduce any super extended growths thereof, pruned to some well placed lateral young shoots; and cut out all dead wood; cut out also the superfluous or overabundant lateral shoots of last summer; but of which retain occasional supplies of some best well-placed in vacancies, and generally have a leading terminal shoot of moderate extent, where eligibly situated, to each mother branch; also in the general retained shoots, particularly those of long extent.

———————— Shorten more or less, or [illegible] *generally* in the currants, cutting them closer than the gooseberry, in both of which some will need but little shortening, and some not at all according to their situation and extent; and generally, where any very long terminal and other super-extending shoots occur, prune them to some moderate extent, consistent wtth the general expansion; also prune any very bending or much reclining shoots to the same regulation, observing generally to shorten them more sparingly in the gooseberries, as when the general shoots of these trees are much shortened in this pruning, it occasions their producing a great superfluity of useless shoots in a crowded thicket the following summer.

Prune gooseberries and currants—Likewise generally observe in the whole, both of gooseberries and currants, to prune away any low straggling, and other under growths, to have a clean single stem below, and to preserve a more regular head above, being more agreeable in appearance, and beneficial to the production of good fruit.

———— I would also advise, in pruning these bushes, to keep the general branches moderately thin, at least about four or five to six inches distant at their extremities; in which the fruit will acquire a full growth, large and well flavoured.

Plant and prune raspberries—set them in rows at four feet and a half by a yard distance; and in old plantations, cut out the decayed stems that were last year's bearers; thin the young to three, four or five, of the strongest on each stool, shortened at top. [See OCTOBER, JANUARY, FEBRUARY, &c.]

Cuttings—of gooseberries and currants may now be planted, of the young shoots, to raise new plants.

———— Likewise suckers from the roots, of one or two years growth, or more, may be planted; gooseberries and currants, advancing in several stems from the root may be divided into single plants.

For forcing—in hot walls, &c. may now plant peaches, nectarines, apricots, figs, vines, plums, cherries, &c. mostly rainted trees of a bearing state. [See OCTOBER.]

FLOWER GARDEN AND PLEASURE GROUND.

In this season give attention to finish clearing all parts of these districts from every sort of litter, to remain in good appearance all winter; and generally to complete or forward all principal planting of roots, plants, and tree and shrub kinds intended.

Clearing the general compartments—cut down and clear away all decayed flower stalks; hoe and rake, or dig the borders; finish weeding the gravel, and mowing the grass close and even (b.), cleaning the same from fallen leaves and other litter; and prune, clean, and dig shrubberies.

Ground work—forward for planting, and other designs in walks, lawns, aud shrubberies, &c.

Beds and borders—designed for planting bulbs and other flowers, prepare by proper digging.

Hoe borders, &c—in dry days, where weeds appear, and make them clean.

Borders—finish clearing from all decayed flower stems, and give a general hoeing and raking: or may be digged, especially where planting bulbs or other flower plants is intended.

Edgings—may be planted of box, thrift, daisies, strawberries, &c.

Box edgings—may be planted; and finish any clipping in old edgings (b.) before frost. [See OCTOBER, &c.]

Thrift edgings—may be planted. [See SEPTEMBER and OCTOBER.]

Climbing and trailing plants—of the shrubby kind, may now be planted and trained against walls, buildings, arbours, &c. such as Virginia creeper, ivy, virgin's bower, honeysuckles, jasmine, passion flower, &c. the former (Virginia creeper) will succeed in towns and cities in any situation; and climb to the top of the highest buildings; also ivy in a more open airy exposure, both of which fasten themselves to the wall, &c. as they ascend.

Composts—prepare for flower-beds and pots of good light garden earth, sandy loam, rotted cow-dung, &c. and turn prepared composts occasionally.

Collect leaves—to make manure.

Pots of plants and seeds—remove to a warm situation in the sun, or plunge them also into the ground, in a somewhat raised dry light soil, to preserve the roots better from frost; or the more tender or curious place in a frame or glass case, &c.

Shelter tender plants—in pots and beds from frost.

Tender curious plants in pots—place now in a warm situation, or some to have the shelter of frames or awnings, &c.

Seed pots and boxes—of young seedling plants, place now in a south border.

Biennial flowers—may be planted (b. m.), or not till spring.

Part roots—of perennial flowers, to increase the sorts required.

Perennials—of all hardy sorts may be planted.

Propagation perform—by slips, off-sets, and parting roots of herbaceous perennials; and by suckers, cuttings, and layers of shrubs and trees.

Off-sets—may be slipped from perennials and planted; finish planting all bulbous off-sets.

Slip root off-sets—of perennials (b. m.) for increase, and plant them in beds, borders, &c.

Fibrous-rooted herbaceous perennials and biennials—finish the autumnal planting.

Herbaceous perennials and biennials—may be planted to flower next year.

Planting—may now be performed in all bulbous and tuberous roots, fibrous-rooted perennials and biennials, and in all trees and shrubs, hedges, edgings, &c.

Bulbous roots—generally complete the principal autumnal planting (b. m.) in beds, borders, &c. of tulips, hyacinths, jonquils, polyanthus, narcissus, and all other hardy bulbous kinds.

———— Place also bulbs in water glasses to flower in a room, and change the water when very foul or fetid.

———— Or may also plant bulbs in pots, and boxes of light earth or sand, to blow in a room, or where required; and for forcing in a hot-house, &c.

Gravel-walks—still weed, clean, and roll principal walks; do not dig them up in ridges, as sometimes practised at this season, as it renders them both unsightly and useless all winter, without answering any beneficial purpose.

Sweep clean—all gravel and grass from fallen leaves and other litter.

Turf—may still be laid; beat it well down, and roll it.

Grass—of principal garden lawns, finish mowing, and occasionally pole and roll in dry weather.

Edges of grass—cut or trim close and regular.

To force in a hot-house, &c.—may pot any roots and plants of curious flowers, as hyacinths, dwarf tulips, large jonquils, pinks, roses, hypericums, syringas, cytisus, double-blossom cherry, &c.

Anemones and ranunculuses—finish the autumn planting, (b. m.)

Auriculas and carnations in pots—finish planting under a warm south-wall, or in a frame, to have the occasional shelter of glasses in severe weather, great rains, snow, &c.

Carnations—finish planting (b. m.) in borders and pots; and remove those in pots to a warm situation.

Layers of carnations— raised last summer and autumn, finish planting in borders, pots, &c.

Hyacinths—finish the autumn planting, (b. m.)

Lilies—finish planting all that remain out of the ground, and occasionally transplant others.

Brompton stocks, and double walls, &c. in pots—remove to a warm place, or under a frame, &c.

Ten-weeks-stocks and mignionette—remove the late raised young plants in pots under glasses (b.)

Strawberries—may be occasionally planted for an edging to particular compartments.

Tulips—may still be successfully planted, but generally finish the principal planting (b. m.)

Shrubberies—commence the winter dressing, by pruning rude rambling disorderly shoots and branches, and decayed wood; dig the ground between the shrubs, especially where the shrubs stand distinct, not overspreading the surface in a thickety growth.

——————— Or in some extensive shrubberies bounding shady or private walks, in which a variety of different common shrubs and small ornamental trees are planted more effectually to form shade, blind, and shelter, &c. and sometimes designedly permitted to run in a thickety growth, no particular culture will be required, except, perhaps pruning any very over-running shoots, and where the shrubs closely overspread the ground, no general digging between them will be necessary.

Shrubbery planting—may be forwarded in any kind of hardy trees and shrubs.

Compartments for shrubbery planting—should be digged and laid out for present planting, in the order intended.

——————————— *The various sorts of roots, plants, shrubs and trees*—for planting, may be obtained at all the nurseries, &c.

Plantations of shrubs and trees—designed for planting, either for ornament or useful occasions, may now be for warded in the different sorts required both of the deciduous tribes, and the hardier evergreen kinds.

Tree planting—may be performed in general in all hardy kinds, both of the deciduous and evergreen tribes, finishing the latter as soon as possible.

Layers may be made—of the young shoots of various shrubs and trees to raise new plants; and rooted layers of last autumn, spring, &c. should now be planted off.

Suckers—dig up from the roots of trees and shrubs; and may plant such as are useful.

Stems of trees—may now be pruned up from all lower shoots and branches.

Trim up the stems of trees, &c.—from any disorderly under branches, low stragglers, and other irregularities, as may seem necessary.

Stake—tall new-planted trees.

Forest and ornamental tree planting—may now be forwarded in all sorts, both for timber plantations, and to ornament pleasure-grounds, parks, &c.

Sowing forest and shrub trees—finish principally for this season; as ash-keys, acorns, beech-mast, haws, &c. in beds, inserting them in drills, one or two inches deep, especially the larger sorts; or for the whole, or in any particular sorts, first draw some earth off the beds, to the depth of one or two inches, sow the seeds, &c. on the general surface, then press them down with the back of a spade, and cover the whole again with earth.

Ornamental trees and shrubs—of most sorts may now be planted for the decorations of shrubberies, pleasure grounds, &c.

——————————— Of all the hardy sorts may be planted.

Flowering shrubs—may be planted of all or any sorts required for shrubberies, borders, &c. both of the deciduous, and most of the evergreen kinds; but complete the latter before the approach of severe frost.

Deciduous trees and shrubs—of all hardy sorts, may be planted freely (b. m. l.)

Evergreen shrubs and trees—of all hardy sorts may still be planted, finishing early, or by (m. l.), for fear of severe frost, or some principal sorts may be transplanted with balls.

——————————— Tender young evergreens in pots, place in a warm situation; or the more tender young plants place in frames, &c. to have occasional shelter of glasses, mats, &c.

Evergreen shrubs and trees—laying evergreens for propagation, finish (b. m.)

Cuttings for propagation—may be planted of various sorts of deciduous trees and shrubs (b. m.) or may be deferred till spring: the young shoots of last summer are proper for this purpose.

Pruning—now perform where required, to reduce disorderly or superfluous growths in trees and shrubs, and cut out all decayed wood; also trim up irregular growth in over-hanging boughs, or straggling under branches, &c.

Almond tree, the dwarf kind—plant in shrubberies, being very ornamental in their early flowering.

Catalpa—a beautiful large leaved deciduous tree, plant in shrubberies.

Double blossom cherry—a fine ornamental early flowering shrub, may now be planted in shrubberies, pots, &c.

Mezereon—a very early flowering shrub, may now be planted in shrubberies and pots to blow early the ensuing spring.

Hedges—plash and lay the branches of rough grown old hedges in outward fences, &c. that are run up thin and naked below. [See OCTOBER.]

———— Omitted clipping, finish (b.)

———— Planting hedges may be performed in quicksets or whitethorn, privet, hornbeam, elm, poplar, elder, beech, maple, yew, holly, &c. though, in the two latter, and other evergreen kinds, the planting may prove more successful in the spring. [See MARCH.]

WORK IN THE NURSERY.

In this mouth the nursery demands particular attention in the necessary works of planting and propagating many sorts of trees and shrubs; in continuing the preparation of ground for these occasions, and forwarding the completion of the principal autumn planting; also in drawing various sorts of trees and shrubs for garden plantations: finishing the autumn sowing of trees and shrub seeds, and of making layers, planting cuttings, suckers, &c. likewise in removing plants in pots to shelter or warm situations for the winter and in some other occasional works hereafter mentioned.

Continue digging and trenching nursery ground—both in preparation for the present reception of any intended new plantation of young trees and shrubs, and for sowing seeds thereof; and planting cuttings, layers, suckers, &c. also dig or trench some in ridges, to improve by the weather for spring planting and sowing.

All necessary transplanting—may now be performed in he various sorts of hardy trees and shrubs, as occasion may equire, both in all sorts of fruit trees, fruit tree stocks, &c or grafting and budding, and in all kinds of deciduous orest and ornamental trees and flowering shrubs; also in most of the hardier sorts of evergreens.

——————— In the above occasional transplanting, it would be of importance to perform them as early in the month as possible, that they may have a chance of striking fresh root the same season.

Transplant young deciduous trees and shrubs—where necessary, of any hardy kinds requiring more room, both from seed-beds and other compartments where they stand in close growth; also rooted cuttings and layers, &c. in the same state: plant the whole in nursery rows at proper distances, as intimated in October.

——————— *in evergreens*—it is advisable to perform any necessary transplanting intended this season, in the beginning or middle of the month, if open settled weather that they may have a chance of pushing some new roots before they are attacked by the winter cold; otherwise it would be better to defer it till spring.

Finish making layers—of hardy trees and shrubs, for the season; it will be of advantage to complete this work early in the month.

Likewise plant off rooted layers—if any still remain on he parent stools of the preceding autumn, last spring or summer's laying, and place them in nursery rows; or also of any very curious or more tender kinds, plant in pots, for removing to occasional shelter in the winter.

Plant cuttings—of any sorts of hardy deciduous trees and shrubs (b. m.) as are usually or occasionally propagated by that means.

Suckers take off—from the roots of all kinds of trees and shrubs in which they are produced; such as lilacs, limes, roses, gooseberries, currants, raspberries, filberts, figs, codlins, and numerous other sorts: and if wanted for propagation, plant them in the nursery to acquire proper growth.

Finish planting in pots—any sorts of tender or curious young trees, shrubs, &c. as may be intended.

Remove pots of tender evergreens, &c.—in the beginning of the month, if before omitted, to some place of temporary shelter, either into garden frames, glass-pits, or under awnings, in order to have occasional covering in severe frosty weather.

——— *Move pots of hardy plants*—both of trees, shrubs, and herbaceous sorts, to some warm dry situation; and if the pots are plunged in dry raised ground, the roots will be more effectually protected from frost.

Pruning of trees and shrubs—may now be performed as required, in all deciduous kinds, both in fruit, forest, and ornamental trees and shrubs, principally to cut out or reduce any very irregular, or rude rambling shoots, and other disorderly growths, either in the head or below; likewise in hardy evergreens, may occasionally prune any very irregular super-advanced shoots of the head, and low under stragglers.

Trim up the stems—of deciduous, forest, and ornamental trees, by cutting away strong lateral shoots; or shorten small ones to two or three inches.

———— *In fruit trees*—cut out all advanced shoots produced from the stem below the grafting and budding.

Finish the autumnal sowing—of hardy tree and shrub seeds (b. m.) or the sorts mentioned last month, and of all others intended for sowing this season.

Dig between the rows of young trees—of former planting, of one, two, or several years standing, which should be done annually in winter or spring, both to kill all top weeds effectually, and to loosen and freshen the ground for the benefit of the young trees and shrubs.

Young wall and espalier trees in training—give the necessary winter pruning, by cutting out all fore-right, and other ill-placed, improper, and superfluous shoots, and train the others regular.

Plant young fruit trees for training—as above, against walls, pales, &c.

———— Likewise plant young fruit trees in pots for forcing; either such as are advanced to a bearing state, or to train the young to that degree of growth.

Manure nursery ground—where very poor or much exhausted.

If frosty weather prevail—give attention to tender plants of evergreens, in young growth, and tender young seedling plants, by giving some occasional covering; those in pots place in frames, and under awnings, &c. and defend with glasses, garden mats, and other covering occasionally, in very severe weather; and those in beds cover with mats, or loose dry straw litter, peas, haulm, &c.

THE GREEN-HOUSE.

he green-house plants being all housed for winter, they require air admitted freely in mild days, and moderate supplies of water occasionally.

As decayed leaves—will frequently occur in many of the plants, constantly pick them off.

If the earth in any of the pots crust or bind—stir and loosen the surface.

Clean the leaves—of oranges, lemons, &c. if they become foul.

Decayed shoots—when any occur, cut them off.

Admit air—still freely every mid-day, from nine or ten to three or four o'clock; shut close every night, and always both day or night, when frost or sharply cold, and in foggy damp weather.

Give water—moderately once a week, or eight or ten days, or a fortnight, as required, when the earth becomes dry, but very sparingly and less frequent to the succulent plants; and be very careful never to over-water any sorts at this season, which would occasion the leaves to fall.

If any myrtles, &c.—are in frames, or glass-pits, give them also air on mild days, and gentle waterings occasionally; shut the glasses close every night and in very cold weather, and give occasional night covering over the glasses.

In frosty weather—no air, or water, or very little at least must be given, or only occasionally in the middle of fine sunny days, if the frost is moderate: but in severe frost, no air, &c. must be admitted; keep all close, and if there are flues in the green-house for fire heat, make gentle fires every evening and morning during the continuance of severe weather, to warm the internal air sufficiently to repel the rigours of the frost from the plants, also defend the glasses, with mats, or shutters, &c. as likewise any green-house plants in frames or glass-pits, cover thickly with mats and straw litter, in rigorous weather; also, to green-house plants wintered in said glass-pits, or frames, if no fire flues, it would be proper to give a thick lining of warm stable litter to the outside at the approach of severe frosts, &c.

HOT-HOUSE AND STOVE.

In the general hot-house, the pines and other plants of that department, will now require the joint assistance of the continued bark-bed heat, and of evening and morning fires, with occasional admission of air moderately in fine sunny calm days, and some gentle waterings.

At this season, when fire heat is necessary, it is eligible to have a thermometer in the hot-house, as a guide to keep the heat always regular, generally to the degree *ananas* (pine-apple) marked on the said thermometer, which should be suspended towards the middle part of the house, and equally distant between the back and front, to receive the influence of the internal heat equally each way, placing it with the back towards the sun that it may be affected only by the general internal heat of the house, which generally should never exceed 5° or 10° above, nor 5° under *ananas*.

Though by practice an experienced observing person will readily, on entering the hot-house, discover or judge of the proper temperature of the internal heat without the aid of a thermometer, yet it is always advisable to have one placed as above, as a sure guide on particular occasions.

A constant regular heat—must be continued to warm the internal air in a high degree.

In the pinery stoves—if the beds were renewed last month almost wholly with fresh tan, and the succession, fruiting and other pine plants plunged therein, they are to continue for the winter; but if then omitted, it should be effected now. (b.)

Fire heat—will now be necessary in cold weather, every evening, supported moderately till nine or ten o'clock, to heat the flues sufficiently to warm the internal air till morning; likewise a moderate fire in the mornings, especially if cold, raw, foggy, or damp chilling weather, and in frost also occasionally continue in the day, when severe or immoderate cold weather.

The bark-beds—if renewed as advised last month, will now be in a lively heat; but if omitted then, perform it as soon as possible, (b.)

Succession fruiting pines—if omitted removing into the fruiting-house, or the bark-bed for their final residence not wholly renewed in October, let it be done the first week of this month.

Also the younger succession pines—if not done last month, should have fresh bark-beds the beginning of this. [See OCTOBER.]

Fresh air—admit only in the middle of mild sunny days very moderately; but shut close when cold or cloudy, and soon in the afternoon.

Water—will be required moderately to the different plants, occasionally as the earth dries.

Clean the plants occasionally—from any foulness they may contract, and from insects.

Decayed leaves and shoots—clear away.

To force in the hot-house—may introduce pots and glasses of bulbous roots; and towards (l.), pots of pinks, strawberries, kidney-beans, cucumbers, &c.

DECEMBER.

THE KITCHEN GARDEN.

IN this month some sowing and planting will be required and to forward the business of manuring, digging, or trenching vacant ground, lay it in ridges; preparing hot dung. and making hotbeds where early crops are in request; earthing and tying up particular plants to blanch, and to protect some tender plants from frost.

Continue preparing vacant ground—by occasional manuring, or general digging or trenching in ridges to enrich for spring sowing and planting.

Ground vacant—manure and dig, &c. applying dung where most wanted and for principal crops; and should now forward digging and trenching all vacant compartments, laying the ground in ridges.

Digging and trenching—forward now at all opportunities in vacant ground, laying it in ridges to mellow by the weather for future crops.

———————— Warm borders and quarters, dig ready for early crops.

Manure ground—with dung; it should be digged in only one spade deep, that the roots of the plants may sooner receive the benefit.

Frosty weather—the most necessary works are to wheel in dung for manure, hotbeds, &c. and to prepare and turn composts; also when severe frost, to protect tender plants; as cauliflowers, lettuce, and early radishes, &c. with proper covering. [See the different articles under their respective heads.]

In open dry weather—perform the necessary sowing, planting, hoeing, and weeding.

All sowing and planting—in the open ground, perform only in open dry weather.

——— The business of sowing and planting is necessary only in a few articles, some in south borders and warm quarters, and others in hotbeds; all for early crops.

Plant in open weather—beans, cabbages, coleworts, and late celery.

Sow—a few early peas and radishes on warm borders, and small salading and cucumbers in hotbeds.

Plant—some early beans, and strong cabbage plants, and coleworts; and in hotbeds, asparagus, cucumbers, and occasionally mint and tarragon.

For early crops—of peas, beans, and radishes, dig some warm south borders, and warmest dry quarters of ground.

Hoe—young coleworts, cabbages, broccoli, savoys, &c. in dry open weather.

Seed plants—as mentioned last month, finish planting (b. m.), if before omitted.

Root esculents—as parsneps, carrots, red-beet, &c. designed for keeping in sand, finish digging up what are intended, before they are locked in the ground by frost. [See NOVEMBER.]

Dig up esculent roots—to lay in sand if not done; as carrots, parsneps, beets, turnips, &c. (b.)

Composts for hotbeds, &c.—prepare of rich earth, fresh light surface loam, and rotten dung; it will be of much advantage to remain several months in preparation, and turned over occasionally.

Dung for manure and hotbeds—wheel in when frosty and dry weather.

Hotbed dung—provide from stable yards, that which is fresh and abounding in heat, forking up the long and short together into a heap, to prepare a week or a fortnight.

Hotbeds make—for early asparagus, salading, mint, radishes, cucumbers, and lettuce.

Tender plants in frames and hand-glasses—as cauliflowers, lettuce, &c. give full air in mild dry weather daily; but defend of nights, and in rain, snow, and frost; and in severe weather cover also with mats, or more thickly with long litter.

Artichokes—finish winter dressing, by cutting down th large leaves, and landing-up over the rows. [See Nov.]

Asparagus beds—not yet winter dressed, complete th whole, (b.) [See October.]

——— *Asparagus to force*—plant in hotbeds, either as first or succeeding crop for winter production, as explaine in November.

——— In former made beds give air, and keep up the heat, by linings of hot-dung to the sides.

——— When the asparagus shoots in hotbeds are advanced two or three to four or five inches, they should be gathered, thrusting your finger and thumb down into the earth, and breaking them off to the bottom.

Beans—plant a succession of early mazagans, &c. and some long pods in south borders, and sheltered dry quarters in larger supplies than before, planted by dibble, or in drills in rows, two feet and a half asunder, and two inches deep.

——— Likewise plant a first moderate crop of broad beans in rows a yard apart.

——— May sow or plant some mazagan beans, thick for transplanting, if not done last month; being sowed or planted thick together, in a bed or part of a warm border, they can be easily protected with a frame and glasses, or other covering, occasionally, in severe weather, ready for transplanting in regular order, in January or February.

Kidney-beans, to force—sow early kinds in pots or boxes in a hot-house (m. l.)

Broccoli—hoe and earth-up the stems of advancing crops; the early plants will now be in full heads.

Cabbages may be planted—some strong young plants of early sorts, moderately close in rows, one to two feet asunder, for thinning by degrees for use, in their young growth in spring and summer.

To young cauliflower plants—in frames and hand-glasses give air freely in mild weather, by taking off the frame lights in dry days, and propping up the hand-glasses on the south side, or may take the glasses off occasionally; but carefully cover with the glasses, &c. of nights, and in frost, snow, or much rain, and in frosty weather the glasses must be kept very close.

To young cauliflower plants—pick off decayed leaves, stir the earth gently, and search for slugs, which often annoy those plants at this season.

—————— The autumn cauliflowers will still be in production of good heads, if open weather.

Celery—earth-up fully the advanced crops, if not already done; the others according to their growth; all in dry open weather.

Coleworts and cabbage plants—planted out last month, or before or since hoe and stir the earth between the plants.

Cucumbers—may be sowed in a hotbed towards (m. l.), for the first early crops. [See JANUARY.]

——— To cucumbers now advancing in hotbeds, give air in fine days, and support a proper heat by occasional linings of hot dung.

——— Or may sow cucumbers in pots or boxes, &c. in a hot-house (m. l.) to try the chance of an early production in that department.

Endive—tie up full grown plants in dry weather to whiten; or to preserve them more securely from rotting at this season, transplant some into raised ridges of dry earth; and if defended with frames, &c. from great rains, frost, or snow, it will be more effectual.

Lettuce plants in frames and hand glasses, &c.—give full air in mild weather: but protect every night, and when frost and much wet.

—————— *Lettuce to force*—plant some strongest large plants in hotbeds.

Liquorice roots three years old—being of full growth should be dug up; perform this by trenching the ground regularly along by the rows, two or three spades deep, or quite to the bottom of the principal roots, as they generally extend to a great depth.

Mint, tansey, and tarragon—if required early, plant some roots thick in a hotbed.

Mushroom beds—keep thickly covered with dry straw, and over this spread large mats.

———— New mushroom beds may be made.

———— Beds of mushrooms in production, look over once or twice a week, to gather the heads while young, observing always to cover the beds again immediately

Young onions—continue very clear from weeds.

———— *The housed dried onions*—examine and turn over, picking out any that decay or grow.

Parsneps—finish digging up some to lay in sand.

Peas—sow early hotspurs, as early goldens, Charltons, &c. in warm situations (b. m. l.) ; either as successional or first early crops, in larger supplies than in the two last months, in drills two feet and a half, or a yard asunder, and two inches deep.

—— Sow also a moderate crop of marrowfats (m. l.) in a warm quarter, in drills, at a yard or three feet and a half distance.

—— *Peas to force*—sow some early frame sorts in a frame or hotbed (b. m.) ; or sow some thick therein, for transplanting into a hotbed or forcing frame, &c. next month.

—— *Early peas in borders, &c.*—come up an inch or two, draw earth to the stems moderately.

Radishes—sow some early short tops in a warm border, &c. (b. m.), covered with straw two inches thick, till they come up. [See JANUARY.]

——— Sow radishes in a hotbed (b. m.)

Small salading—as cresses, mustard, radishes, sow in a hotbed, or a in natural bed under a shallow frame, defended with glasses.

Spinach—continue clean from weeds; and may gather the largest leaves for use as wanted.

Strawberries in pots to force—remove under shelter of a frame or warm border (b.), to have the plants in good condition to place in a hot-house or hotbed (m. l.), or next month, &c.

———————— Or may now pot two years plants with balls; and place some in a hot-house (m. l.)

FRUIT GARDEN AND ORCHARD.

The work of this month is to complete any principal planting intended, while open weather, and to forward all winter pruning.

Ground intended for planting—with any kind of fruit trees, if improvement in the soil is thought necessary, let it be done according to the intimations given in the two last months; but remark that fruit trees will prosper in any good mellow ground, the soil of which is one or two spades deep, and that is not liable to be very wet; but where the latter unavoidably occurs, endeavour to amend and raise it as much a possible, especially where the trees are to be set.

———————————— Or where the ground is of a very poor, light, hungry, or otherwise unfavourable nature, apply a compost of good earth, loam, and rotten dung, at least to the places where the trees are to stand, which may be increased at leisure, as observed on former occasions.

Planting may be performed—in all wall trees, espaliers, and standards, when the weather is open.

——— It is advisable to complete what is intended at this season, as soon as possible, while open weather prevails and not continue it, or have the trees removed for that occasion if there is the appearance of expected frost setting in severe.

——— Take up the trees with the full spread of roots: prune broken parts thereof, and long stragglers; and cut out any ill placed productions in the head; then digging a wide round aperture for each tree a moderate depth, make the roots spread therein equally, and fill in the earth, shaking the tree to settle the earth between, and close about the roots in a proper manner, and tread in the top gently.

Mulch over the roots—of new planted trees to keep out the frost.

Wall trees may be planted--of apricots, peaches, nectarines, plums, cherries, figs, grapes, pears, and some early or choicest eating apples, according to the directions of last month.

Espaliers—plant of apples, pears, plums, cherries, &c. as directed in November.

Standard fruit trees—of all sorts may likewise be planted; as apples, pears, plums, cherries, and all others, agreeable to the explanation given last month.

———————————— Orchards may be planted

of the different sorts of standard fruit trees mentioned in November.

Standard fruit trees—give occasional pruning where required, cutting out cross placed or other irregular branches, and thin others where too crowded; also reduce any over extended branches, and low straggling boughs; cut away all shoots from the stems, strong shoots rising irregularly in the head, and all dead wood; and eradicate suckers from the roots, &c.

Stake and support standard fruit trees—of tender tall growth, where exposed to the wind, especially those lately planted.

Pruning—may be performed at all opportunities, in the different sorts of wall trees, except figs; and may prune all sorts of espaliers; likewise prune standards as they may occasionally require. [See FEBRUARY and MARCH.]

——— A general winter as well as summer pruning, is necessary in all wall and espalier trees; but in standards only occasionally, as intimated last month.

Wall tree pruning - perform in peaches, nectarines, apricots, plums, cherries, pears, vines, &c. as in November and January: and according as each tree is pruned, train and nail the branches to the wall, &c. in regular order.

Espalier pruning—forward in all sorts of trees in that order of training. [See NOVEMBER.]

Nail wall trees and tie and nail espaliers—according as each tree is pruned, training the branches horizontally, three or four to five or six inches asunder.

For stocks—to graft and bud upon, plant suckers of plums. pears, quinces, and hazel nuts.

Fig trees—defer pruning till towards the spring. [See FEBRUARY and MARCH.]

——— Protect some of the choicest principal kinds of fig-trees, when very severe frosts, the young shoots being spungy and succulent, and liable to be killed or greatly injured by the frost, by nailing up large thick garden mats: or, by unnailing the branches, tying them in parcels together, and placing them in the ground, under a thick covering of straw litter, they will be more securely protected.

Vines—prune and nail, agreeable to the observations in last month.

Keeping fruits—as apples, pears, &c. in the fruitery, examine to pick out any that decay; and lay some medlars in moist brawn, to forward their softening.

Gooseberries, currants, and raspberries—may be planted and pruned, as directed in November.

For propagating—plant suckers of gooseberries, currants, filberts, hazel nuts, figs, quinces, codlins, berberries, raspberries; also cuttings of currants, gooseberries, mulberries, vines, codlins, quinces; likewise make layers of vines, figs, mulberries, and filberts, all principally of the young shoots.

Fruit forcing houses—furnish now with trees proper for bearing, if not yet done, of the sorts intimated last month, &c. and plant in the proper departments; or some dwarf trees, &c. raised in pots, may be introduced occasionally; and may now begin to prepare for forcing, in the departments where the trees have had proper growth; first put on all the glasses close, and (towards 1. this or b. m. next month) prepare for the fire and bark-bed heat, and continue it till May or June; beginning earliest in vineries. [See JAN. FEB. MARCH, APRIL, and MAY.

FLOWER GARDEN AND PLEASURE GROUND.

The business of the flower garden, pleasure ground, &c. consists in finishing all intended winter planting, if mild weather, in roots, plants, shrubs, and trees; and in forwarding any requisite pruning in trees and shrubs: also to keep the principal compartments of walks, borders, and lawns, decently clean; and in severe frost to give occasional protection to tender or curious plants.

For intended planting—dig beds, borders, and shrubbery compartments.

Keep clean all principal compartments—by eradicating weeds from the borders, and sometimes raking them; pole and roll grass, sweep and roll principal gravel walks, and prune and dig shrubberies; also dig beds and borders to destroy weeds effectually, and to appear clean, neat, and ready for planting, &c.

Vacancies—in borders, clumps, shrubberies, and other plantations, may now be supplied with roots, plants, shrubs trees, &c. in open weather.

Planting—may still be performed in open mild weather, in bulbous roots, hardy perennials and biennials, and most sorts of trees and shrubs: but more freely in the deciduous than in the evergreen kinds.

———— where intended, should be performed only in open weather; and discontinue removing or transplanting any trees, shrubs, and plants, when appearance of much frost.

Planting—And desist from planting any trees, shrubs, &c. in severe frost; but either trench them by the roots in the ground, or otherwise secure them effectually from the frost.

Edgings—may be planted in open weather, of box, thrift, &c. [See OCTOBER.]

Box edgings—may be planted. [See OCTOBER. &c]

Composts—for flower beds, pots, &c. prepare; and turn former made composts.

Climbers—plant to run over arbours, or to ascend on trees, walls, &c. [See NOVEMBER.]

Herbaceous plants—of hardiest kinds, may be planted in open weather.

Perennial flowers—hardiest kinds, may be transplanted in open weather, into beds, borders, &c. as in November.

Fibrous-rooted flowers—of perennials and biennials, may be planted of the hardiest kinds.

Defend curious or tender plants—in pots or beds, from severe frost and snow, with a frame, &c. or an awning of mats.

Frosty weather—when very severe, be careful to protect tender and curious plants in pots and beds, &c. those in pots of any curious or tender shrubs and plants, being advised in the preceding months to be placed in frames, under awnings, or other places of occasional shelter, should in rigorous frosts be closely covered with the glasses; those in frames, or others that are under awnings or hoop arches, &c. should have a thick covering of garden mats; also occasionally both these and those in frames, should have additional covering of straw litter, &c. when the frost is very severe; in which likewise give occasional covering to any choice plants in pots in the full air, and to beds of curious bulbous flower roots, &c. and mulch the ground over the roots of any new planted curious or tender shrubs and trees, &c.

——————————to tender evergreen shrubs, &c. planted in the open ground, such as magnolia, &c. give protection of large thick mats in severe frosty weather.

Bulbous roots—may still be planted (b. m) in mild dry weather; as hyacinths, tulips, jonquils, crocuses, &c in beds and borders of light dry earth.

Bulbous roots—Plant bulbs in water-glasses, or in pots to blow in a house, or to force in a stove or hot-bed.

——————Change the water in the glasses when fetid or foul, once in two or three weeks.

Plants in pots—place some tenderest sorts in frames; others in a warm situation, or plunged in some dry ground, to secure the roots from frost.

——————Or some more tender or curious plants in pots, shelter under frames or awnings of mats, as above advised.

Gravel walks—sweep and roll occasionally.

Leaves fallen—finish clearing off from all grass and gravel walks, borders, &c. and save for compost.

Turf may still be laid—in open weather.

Pole grass—in dry open weather, where foul with worm-cast earth; afterwards roll to clear up the earth to the roller, or otherwise sweep clean.

Grass lawns, &c,—continue to clean from all litter; and sometimes pole and roll in dry open weather.

Anemones, ranunculuses, and winter aconite—may be planted in beds and borders.

————Or may also plant anemones and ranunculuses in pots, to flower in a house, &c. or in a hot-house earlier.

Auriculas and carnations in pots—defend best sorts from severe frost, snow, and great rains, in a frame, or under an awning of mats, &c. or in want thereof, continue in a warm situation under a south wall.

Crocuses and snow drops—plant towards edges of borders, &c. in small clumps, four or five roots together, each sort separate.

Crown imperials and lilies—finish planting (b.) all those yet remaining out of the ground.

Hyacinths—may be finished planting (b. m)

Lilies—complete planting, or transplanting occasionally (b.)

Groves, clumps, and spacious walks of trees—proper to ornament extensive pleasure grounds, parks, &c. may be planted now with variety of different sorts of tree kinds, of some advanced growth, five or six to eight or ten feet high or more, especially deciduous kinds.

Shrubberies—prune and dig: cutting out rude and rambling disorderly shoots, &c. and dig the ground between the shrubs.

Frosty weather—plant shrubberies where intended, with different sorts of shrubs, &c. in a varied order.

Mulch new planted shrubs and trees—especially of the more tender or curious kinds, spreading it on the ground over the roots.

Suckers—dig up from roots of trees, &c. and plant for supplies of new plants.

Stake and support tall standards—lately planted in exposed situations, to secure them against tempestuous winds.

Tree plantations—in open weather, various sorts of ornamental and forest trees may be planted, in groves, woods, thickets, clumps, walks, single rows, dotting, &c.

In forming tree plantations—the trees for this purpose may be of smaller or larger young growth, as required for different occasions, from three, four, or five, to six, eight, or ten feet, but from six to eight or ten feet, is the proper size for general planting; or for particular purposes, may plant trees of twelve or fifteen feet, or more, of some deciduous kinds particularly; but in evergreens, those from two, three or four, to five or six feet, are the most successful.

Forest or any large growing trees—may be planted in open weather, of all deciduous kinds, and of some hardiest evergreens, both for useful and ornamental plantations, shade, shelter, &c.

Deciduous trees and shrubs—may be planted of all sorts in open weather, for any intended plantations.

Evergreen shrubs and trees—plant but sparingly at this season, or only some hardiest kinds (b. m.), if the season is mild.

——————————————defend tender curious evergreens from rigorous frost, as magnolia, arbutus, &c.

Prune shrubs and trees—where necessary, to cut away or reduce any very irregular or unseemly growths.

Cedars and cypress trees—may be planted (b. m.

Elm trees—of all sorts, may be planted now for any purposes required.

Fir and pine trees—of the hardiest sorts, may be planted, of young or advanced growth, one or two to five or six feet.

Lombardy poplar—a most swift-growing deciduous tree branching to the bottom; of utility, principally to plant where an expeditious growth is required, either for shade, shelter, blind, &c. or to plant near road sides to break off the dust in summer, also occasionally in an assemblage with other trees, but admitted very sparingly in small gardens.

Magnolias and broad-leaved myrtle—and other tender curious evergreens in the open air, should be defended with mats in severe frosty weather.

Hedges not clipped in summer—may now have that work performed in any of the deciduous kinds; but not evergreens, as when they are cut at this season, the frost is apt to affect the leaves, and cause an unsightly appearance all winter and spring.

——————————Planting deciduous hedges, may be performed in hawthorn or quick, privet, beech, elm, hornbeam, maple, elder, Lombardy poplar, &c. but for the most effective outward hedge fence, the haw or white thorn is superior to all: though the others are also eligible on various occasions. [See MARCH, for some general intimations of the method of hedge planting.]

——————————plash old hedges, that are run up rough, naked, and hollow below, cutting a gash in the larger branches with the hedge-bill, to admit of plashing down; lay them and the smaller branches slantingly together along between other strong branches or stems left upright as stakes, heading them to three or four feet.

In pots in the nursery—may plant some bulbous roots; as hyacinths, dwarf tulips, jonquils, &c. also pinks, &c. removed therein with balls; and may place some of each in a hot-house for early flowering.

WORK IN THE NURSERY.

In this season, as severe frosts often prevail or are expected, no considerable works of removing or transplanting of young trees, &c. is advisable, nor of sowing seed thereof, or by propagating by cuttings and layers; but several other necessary works will be required, which should now be performed occasionally; such as forwarding the digging of vacant ground for spring planting and sowing; digging between the rows of trees and shrubs; mulching the ground between the stems of some of the more curious or less hardy kinds, to preserve them more securely from the power of rigorous frost; giving other occasional protection in severe weather to any more tender or curious exotics; pruning and trimming the stems of trees, &c. wheeling in dung for manure; and some other occasional works, as hereafter directed.

The work of transplanting—may be occasionally performed moderately in open weather, where required, especially in most of the hardy deciduous trees and shrubs, both in some nursery planting, and for final planting in garden and shrubbery plantations, &c. but if appearance of frost setting in, should decline all planting, or at least removal or transplanting of any kind of trees and shrubs.

———————————However, in continuation of open settled weather, any particularly necessary planting and drawing of trees may be forwarded in dry light ground, without any great risk of injury; and may transplant some hardier sorts of evergreen (b. m.) for gardens, shrubberies, and other plantations; but they will be more safely removed with balls of earth about the roots.

The work of transplanting—but in evergreens particularly, it is not at all advisable to perform any general transplanting at this season in the nursery way.

May plant suckers—from the roots of any hardy trees and shrubs where produced; as roses, lilacs, and many other sorts, planting them in rows, to form new nursery plantations of the respective kinds, to acquire proper growth for their several purposes of final planting in gardens and shrubberies, &c. according as they are wanted for these occasions.

Continue digging or trenching—any vacant ground for spring planting, that it may be ready at that season, and so mellow and improve by the effects of the different sorts of weather in winter.

Dung or manure ground—where it is most required, either in some particular or vacant compartments, or occasionally between rows of young trees of several years standing, or where the ground is either much impoverished, or naturally of a very poor infertile quality.

Digging between the rows of young trees—should now be forwarded at proper opportunities, in open weather, performing the digging neatly one spade deep, being careful not to disturb the main roots, nor injure the others, turning the top weeds clean to the bottom.

Lay mulch about new-planted trees—especially of some principal, more curious, or less hardy kinds, laying it on the ground between and round the stems, to keep off the frost as much as possible from the roots.

Defend exotics—and any curious and less hardy young trees and shrubs, or other plants of similar quality, from severe frost and snow, by awnings or coverings of mats and long light straw litter, &c. or pots containing plants of the above kinds should now, if not before done, be placed in frames, or under hoop arches, and covered with mats, straw, fern, or peas-haulm, &c. a proper thickness, to keep out the frost; but in open weather remove all the covering.

——————Or young exotics in beds in the full ground, and not yet of sufficient strength to bear the rigours of our winters without some protection, should have mulch laid on the surface between the stems, and when severe frost, either arch over the beds and mat them, or cover their tops with some dry light covering of straw, peas-haulm, or dry fern, &c.

Pruning and trimming—may be performed in any sorts of hardy deciduous trees and shrubs, nor generally in evergreens at this season; but in the others it is proper now to forward any requisite work of that kind; such as trimming up the stems of forest and ornamental trees, &c. cutting away all strong lateral shoots, and pruning any irregular growths above: likewise give any necessary pruning to flowering shrubs, by retrenching or reducing rude or disorderly shoots and branches, or any very luxuriant or ill-growing rampant or rambling growths, run-away shoots, and low stragglers, whereby to preserve some little regularity in the general branches of the head, acccording to the nature of growth of the different sorts.

——————*Likewise in fruit trees*—prune or cut away all shoots from the stems; and in those furnished with a head of branches, if any are disorderly, of irregular growth, or ill-placed, give a regulating pruning as required.

THE GREEN-HOUSE.

In the green-house particular attention is required, to admit air to the plants in all mild weather, and to give occasional moderate waterings; likewise to protect them effectually from frost.

Fresh air—admit only in mild open weather, every day, by opening some of the glasses moderately, from nine or ten in the morning till three or four in the afternoon; then shut close for the night.

——— But in giving air, if the weather changes sharpily cold, shut close, or only draw down the glasses a little at top.

——— Never admit air in foggy or very damp weather, nor when sharp frost or much wind.

In frosty weather—keep the glasses constantly close; and when very severe, put up shutters, or nail mats against the glasses; also where flues, make gentle fires.

Water—will be required occasionally, but always very moderately at this season, and never in frost; water the succulent plants but seldom and sparingly.

Stir the surface of the earth—in the pots where it appears crusted or bound.

Decayed leaves, shoots, &c.—always clear off from the plants.

HOT-HOUSE AND STOVE.

At this season be careful to keep a constant regular heat in the pinery and general hot-house, by continuing the bark-beds of a proper temperature, and by fires every evening and cold mornings, or sometimes all day, when intemperately cold, or severe frosts; and in mild sunny weather give occasional moderate supplies of air and water.

As most hot-houses, &c. comprise not only a principal supply of pines, but also of many other curious tender exotics, the same degree of internal heat suits the whole; only the pines in particular, must be continued always plunged in the bark-bed: and most of the other plants may be disposed in different parts of the hot-house or pinery, upon shelves at top of the flues, &c. and some occasionally in the bark-bed, particularly any more curious tender kinds; or sometimes to forward any particular sorts of flowering more effectually, and occasionally to strike cuttings, layers, and suckers; or also to vegetate seeds,or to expedite the fresh roots of some newly planted exotics.

The bark bed—renewed in October, or last month, will still be of a good heat; if, however, it is much decreased, fork up the bark, which will revive the heat for a month or six weeks. [See JANUARY.]

Fires—continue making every evening, and in cold mornings, as advised last month, continue the evening fires till nine or ten o'clock, sufficient to support a mild internal heat till morning; and in severe frost, or other sharp cold weather, continue a moderate fire heat all day.

For a guide in the proper degree of fire heat—have always a thermometer in the hot-house, as intimated last month.

If rigorous frost prevails—constant fires will be required; and when the frost is very severe, it will be advisable to defend the glasses occasionally of nights with shutters, or large thick garden mats; also sometimes in the day when no sun.

Watering—will sometimes be required; but give it very gently, and only when and where it appears necessary, by the earth seeming dry.

The pine apple plants--having been replunged in renewed bark beds in the two last months, will now require only some gentle waterings, in the order just above suggested; if, however, the bark bed declines much in heat, fork them over, and replunge the pots till January, which see.

The proper fuel for fire heat—in the hot-house is either coal, peat, or wood; but the former is preferable for steady, regular, and durable burning.

Where vines are trained in hot-houses or pineries for early fruit, let the branches and shoots be regularly trained along the rafters, frames, or glasses, or some extended longitudinally along the horizontal beams, &c. and where not yet pruned, it should now be done, as formerly directed for the wall vines.

In a pine-apple stove, the requisite degree of bark bed and fire heat, the former all the year, and the latter in winter till May, for the culture of that estimable exotic and its admired fruit, is most applicably adapted to all other tender exotics of similar temperature, from the hot parts of Africa, Asia, and America, &c. and that requisite hot-house culture in this country, both of herbaceous, woody, and succulent kinds, and being placed in different situations in a general hot-house well secured; though some-

, where large collections of curious and other tender
lents, which being of a humid moist nature, are oc-
nally placed in a dry stove, warmed by fire heat only
g the season; as also several other sorts of plants
y of similar quality: however, they will also mostly
ed in a warmer hot-house as above; and which is also
fectual utility in raising and forwarding many other
ts, flowers, fruits, &c.

GENERAL REGISTER
OF ALL THE
PRINCIPAL PLANTS, SHRUBS, FRUIT AND FOREST TREES, FLOWERS, &c.,
PROPER FOR CULTURE IN THE
SEVERAL DISTRICTS OF GARDENING.

HAVING in the foregoing given a general practical Journal, and essential particulars of the necessary works for the twelve months in the year, in sowing, planting, transplanting, and all the material culture of the various plants, flowers, fruits, trees, shrubs, &c., and management of the different garden districts, I shall now proceed to give a register of the different plants, both of herbaceous and woody kinds, proper for each district of gardening; kitchen garden, flower garden, fruit garden, or orchard, shrubbery, or pleasure ground, woods, forests, green-houses, hot-houses, and stoves; intimations of the nature of growth, general uses, and methods of propagation or ways of raising the different plants,—all explained under their respective heads.

THE KITCHEN GARDEN.

The best ground is that having an open aspect to the east, so that the sun has a gradual influence on it; if the nature of the soil is unfavourable, it should be gradually improved, for if it is too strong it should be trenched and screened; if too light, add loam; to correct stubborn clay, add sand or sea weeds, and if too wet, it should be drained.

The ground should be walled round for the purpose of giving support to wall trees, with which it should be well covered according to the aspect, and to shelter young crops. The area should be divided into suitable compartments, leaving a grass plat before the windows; if it also answers the purpose of a flower garden, with walks, leaving a broad border round the edge, the walks are best made of pond dirt, or if that is not to be got, of coal ashes; and the best edging is a single course of bricks, or slips of cast iron, which last longer, and do not harbour slugs like box. The area should be scattered with standards, and half-standard fruit trees; the small bushes, as currants and raspberries, placed round the edges, or in rows by themselves. Where early crops are required, there must be some garden frames for forcing and covering tender plants; they should be placed in some sunny opening.

The ground should be dug and trenched over once a year, either in winter or early in spring, or as often as the ground is empty: and that which is empty all the winter should be trenched and let to lay fallow.

The time for sowing and planting, is the spring months for the principal crops; but some require to be sown earlier, as in January, and others for successive crops in smaller quantities, from April to September, and for very early crops a few of a kind may be sown or planted in hot-beds, or covered with litter. It is better not to keep the same plants always to the same place, but to change their position in the garden so as to allow the ground to regain what it has lost.

Plants are divided into annuals, biennials, and perennials. *Annuals* are always raised by seeds, which may be sowed frequently within the year. *Biennials* do not run to seed till the year after they are sown; they should be sown every year to have an autumnal crop. *Perennials* produce fresh crops every year, till their roots are worn out; they are raised by seed, or continued by slips, suckers, partings of the roots, or cuttings, and may be transplanted, and some require to be planted every year, as those cultivated for their roots or bulbs.

Pot Herbs.

Biennials raised by seed, and transplanted; the leaves and unopened flowers eaten boiled, and pickled.

Cabbage, early dwarf and Yorkshire, large York, early sugar-loaf, large sugar-loaf, for a main crop. —Battersea, early imperial and Russia, middling early, Antwerp middling, long fine hollow, large round white, for autumn and winter.—Dutch, for pickling, &c.——Large drum-head, and Scotch, for cattle principally, autumn and winter.

Cabbage-colewort, see Coleworts.

Coleworts, always adopt the large York sugar-loaf, and of other similar kinds for cabbage-coleworts.

Borecole, Scotch kale, &c. green curled, brown or purple, finely fringed, spreading, and upright.

Savoy, or Savoy cabbage, green curled, yellow curled, oval headed, round ditto.

Broccoli, for its central cauliflower-like head, early dwarf purple, large late purple, late dwarf purple, late green, brown, branching white or cauliflower broccoli.

Cauliflower, early for the first crop, and the large for the main and general crops.

Spinaceous Plants.

Annuals raised by seed, requiring rich soil used for their succulent leaves.

Spinach, round-leaved, for spring and summer, triangular-leaved, for winter, &c.

Beet, the green-leaved, and large white, for their leaves.

Orach, white, or mountain spinach (by seed) in spring, summer, &c.

Swiss-chard, for its abundant leaves.

Salads and Dressing Plants.

The annual kinds require *frequent sowing* to keep *a continual* crop and the *perennial ones to* be parted by their roots; the later sort are placed at the end, and marked with a star.

Small salads, as cress, mustard, and radish.

Lettuce, green cos lettuce, white cos, spotted cos, white cabbage, brown Dutch ditto, large imperial cabbage, grand admirable ditto, hardy cabbage, tennis-ball ditto, large Roman ditto.

Corn salad, for winter use.

Cresses, common curly and broad leaved.

Endive (by seed), common green curled, for the main crops; white curled, large broad leaved, Batavian.

Celery, common upright, giant upright, solid stalked.

Celeriac, turnip-rooted, or dwarf celery.

Angelica, a large tall plant, its young shoots to candy (by seed).

Mustard, common white, brown; the former is preferable.

Finochio or Azorian fennel, to slice in salads.

Rape, or cole (by seed), a small salad herb.

Clary, for its large spreading leaves (by seed).

Nasturtium, or Indian cress (by seed), large running (best), dwarf.

Parsley (by seed), common, plain-leaved, curled-leaved; Hamburgh broad-leaved, for its large root.

Marigold (by seed), orange coloured, yellow, double-flowered.

Fennel (by seed, and slips from the roots).

Purslane, green, golden.

Radish, early short-topped, purple, common red, common salmon coloured, short-topped salmon, turnip rooted small white, ditto red, large black turnip rooted, for small salading.

Chervil (by seed), for its leaves.

Coriander (by seed), used for soup, salads, &c.

Dill (by seed), for its leaves and seed umbels.

*Tarragon (by parting the root, slips, or cuttings).

*Sorrel (by seed and parting the roots), common triangular-leaved, round-leaved.

*Horse-radish (slips and cuttings of the root).

*Burnet, for soups or salads, (either by seed or parting the roots).

*Water cresses (by roots and seed), seldom cultivated.

Esculent Roots

Should be planted in a light sandy dry soil; they are either annual, and require constant sowing, or are biennial, and should have two or three crops, or are *perennial,* when they require *fresh planting* every year.

*Potatoes, by cutting the roots, or by seed for new varities; the principal are early round dwarf, prolific, forward, round champion, round red, round dark red, mostly large old dark rounded Lancashire, pale round red, ox noble, lump round pale red with deep eyes; round white common kidney-shaped radish; large kidney-shaped, called red-nose kidney in the London markets; small white kidney.

*Skirrets, (by seed, and slipping or parting the roots).

Beet, red-rooted, for its root.

Parsneps, for its large salutary root (by seed).

Carrot (by seed), the large orange carrot for a main crop, and early short horn carrot.

Turnips (by seed), early Dutch, common Dutch, round white, large round white, large round green topped, large red topped tankardlaness; stone turnip, small French, long-rooted, yellow.

Turnip cabbage (by seed) the turnip rooted, the turnip underground, turnip stalked, the turnip above ground.

Salsafy (by seed).

Rampion, for its root (by seed).

Radishes, various sorts.

Leguminous Plants.

These should be sticked when they are twining, and the tops of the leaves should be nipped off; they are all annual, and require two or three crops.

Peas (all by seed), several sorts, viz. early Charlton, early golden Charlton, early Nichol's golden; Reading, hotspur, long-pods, Master's long-pod hots, dwarf marrowfats, tall marrowfats, Spanish moratto, large white rouncival, grey, large ditto; tall sugar with long crooked pods; dwarf ditto; crown or rose pea tall and strong blossoming in a bunchy tuft at top; Leadman's dwarf, dwarf Spanish; small pods a numerous bearer; early frame pea for forcing.

Beans, early small mazagan and Lisbon, early long-pod, common and large sword long-pod, broad Spanish and Sandwich tokers, Windsor broad bean, Kentish large, Windsor, largest Windsor, white blossomed, green nonpareil, Munfor, dwarf cluster or fan, red-blossomed.

Kidney-beans. Dwarf kinds —early white dwarf, early *liver* colcured, early *red speckled*, dwarf, *black speckled*, brown speckled, negro or black; Battersea and Canterbury white dwarfs, tawney large white. Runners —scarlet runner, large white runner, large white Dutch, Canterbury and Battersea small white runners.

Alliaceous Plants.

These are annual or perennial; the roots are bulbous, and should be taken up in autumn.

Onion (by seed), common round Strasburg, Deptford large round, Portugal large, Spanish large white, red Spanish, silver rind; Welsh onion or cibol, never bulbing.

——*Tree onion, shoots up on a tall stem, producing a kind of small bulbs at top, fine to pickle (raised either by the small off-set root bulbs, or those of the stalk or head).

Leek (by seed), large London leek, Flanders leek.

*Shallot, a bulbous-rooted useful plant (by dividing the off sets).

*Garlick (by dividing the cloves or the root).

*Cives, or Chives (by parting the roots)

Asparaginous Plants.

Perennial plants requiring to be earthed up, or covered with mats, as it is only the blanched unexpanded leaves that are eaten; they are generally tender, and like a moist soil: raised by seed and roots.

*Asparagus, red topped, (best) green topped.

*Cabbage, sea-beach, or sea-colewort.

*Artichoke, (by suckers, globe, (largest, best) oval or green.

Aromatic Plants.

General small shrubs, which are raised by seeds, or parting of their roots they should be collected when in flower, and dried in the shade.

*Balm, (by slips parting the roots, &c.)

Chamomile) by parting the roots,) common single, double flowered.

*Hyssop (by seed and slips).

*Lavender (by slips or cuttings).

Marjoram sweet (by seed). *Winter and pot (by parting the roots, and by seed).

*Mint (by parting roots, young suckers, and cuttings of the stalks), small green and spear-mint, black, or pepper-mint.

*Rosemary, a shrubby evergreen, used in German medicine, &c. (by young cuttings, slips, and layers); officinal green, striped leaved.

Rue, a shrubby bushy evergreen, for family medical occasions (by slips, cuttings, and seed).

*Sage, a useful pot herb, green all the year (by young slips, cuttings, &c.) common red sage, green sage, broad-leaved balsamic, small-leaved green, sage of virtue, or tea-sage.

Savory, summer (by seed); winter (by slips, off-sets, and seed).

*Tansey (by parting the roots, plain-leaved, curly-leaved).

*Thyme (by seed or slips), common green, lemon-scented.

Basil, (by seed in a hot-bed,) dwarf bush basil, large sweet basil.

Fruit-bearing Plants.

These plants are generally tender, and require to be raised in hotbeds, and kept sheltered. Their fruit is used in confectionary, or to eat raw; they are all annual, and require to be sown in the spring.

Capsicum, for its seed-pods to pickle, (by seed in a hotbed,) as long-podded, heart-shaped, bell-shaped, angular, round, short, upright, hanging, red, yellow, cherry-shaped.

Cucumber (by seed), in a hotbed in winter and spring, and in the open ground in summer; curly short prickly, curly long prickly, most long prickly, white prickly, long green Turkey.

Gourds, pompions, &c. (all by seed), orange gourd, pear-shaped, green and striped, round yellow, lemon-coloured, stone-coloured, party-coloured, oblong, oval, pyramidical; horn-gourd, barrel ditto, squash or target ditto; rock or carbuncled, pompion, or pompkin gourd, generally most large, oblong, &c.

Love-apple or tomatoes (by seed in a hot-bed), red, yellow.

Melon (by seed in a hot-bed), Roman small round. Cantaloupe large round, rock Cantaloupe, scarlet ditto, white ditto; Polignac melon, oblong ribbed, knotted green rinded, green-florid, water melon.

Mushroom (by spawn, or white fibrous matter in lumps of rotten dung, &c.) red-gilled, or common wholesome mushroom.

FRUIT GARDEN AND ORCHARD.

Fruit trees are propagated in three ways; by seed for new varieties, and the continuation of old ones, by grafting or budding, and by slips, layers, or suckers. The seed should be sown in pure light earth, and when the seedlings are two years old they should be moved into rows two feet apart, taking those only that are of a good form, and in time they should be trained as they are intended, into full standard, with a single stem, and circular heads for areas of gardens and orchards, and half or dwarf standard, which are lower, for garden borders, and wall or espalier, which are trained flat laterally, so as to be nailed or tied against a wall, and riders or wall forth long stems, to place between other walls.

In manuring fruit-trees, they do not like hot or crude dung, but prefer it mixed with road dirt or ashes.

In planting wall or border trees, they should be placed at least a foot from the wall, and three or four feet from the walk, so as to give room for the roots to expand. The season for planting is from the fall of the leaves to the bursting of the buds in spring: the holes for the roots should be opened some time before the trees are planted, and they should be large enough not to bend and cramp the roots.

When trees are only to move from one part of the garden to another, they should be taken up with a ball of earth: but if they have been long taken up, and the roots are exposed, the rotten and unbarked roots, and all the fibres should be cut off, as they are of no service; the hole should be carefully filled, so as to leave no cavities; and the mould firmly pressed down and watered, if the ground is dry; and to protect them from the frost of the coming winter and drought of the summer; lay some mulch or litter about the stem.

In nailing against walls be careful not to bruise the trees, which should be placed directly against the wall, as trelisses do not allow sufficient reflection of the sun's rays to ripen the fruit; the shreds should not be too large.

Pruning may be divided into summer and winter pruning. In the *summer pruning* great attention must be paid not to destroy the germs of future wood or fruit, but to remove sprays not serviceable, as branches and bearers retain all the fruit buds, and well placed wood shoots for to afford selection in the winter pruning, but rub or pinch off all the others. In *winter pruning*, a final selection is to be made from the wood shoots of last year; the proper time is from the fall of the leaf to the rising of the sap in spring. Autumn is the best time for all plants except the fig and vine, as it strengthens them, and brings them forward; but beginners can do it best in spring, as the buds can guide them.

The best time to choose trees is the middle of September, letting them stand till the latter end of autumn before they are moved. Fig, or those that have clear smooth barks, and good late shoots; and they are best when they have been grafted two or at most three years.

The following is a list of all the best sorts for a small garden: there are other larger lists published by all the larger gardeners.

Kernel Fruits or Pomes.

These trees are usually standards, but sometimes espalier and wall; they bear on spurs or short strong shoots for the last year's wood, and bear for four or five successive years.

Apples, comprising many valuable varieties; the chief varieties of the fruit are, early gennetting or jenneting, smallest curly ripe, codlin, most useful summer and autumn apple, Margaret apple, golden rennet, golden pippin, kinlin pippin, golden russet, nonpareil, large royal russet, grey russet, scar pearmain, nonsuch, royal, pearmain, Holland pippin, marguirite apple, Dutch codlin, aromatic russet, kitchen rennet, cat's head, hanging body, lemon pippin, English rennet, white rennet, grey Paddington, Newton pippin, winter pearmain, white costin winter russet, stew pippin, Kirton pippin, summer and winter queening, tambour, white French rennet, summer and winter pomme d'apia, Kirk's pearmain, Siberian crab, smaller and larger autumn, cherry-shaped crab for preserving, Dutch dwarf paradise, principally used for dwarf stocks.

Pears, many desirably fine varieties (propagated by grafting and budding, see fruit garden and nursery); green chissel, supreme or little early musk, red muscadelle, little muscat, citron des Carmes, Catharine, orange musk, red orange, musk, jargonelle, most fine; cuisse madame, large and good; Windsor pear, almost similar, or nearly like the last; August muscat, musk robin, green muscat, musk drone, summer bergamot, autumn bergamot, summer bonchretien, red beurre, princes pear, rose pear, great onion pear, brown beurre, orange bergamot, golden beurre, green sugar, great russelet, little russelet, messierjean, swan's egg, royal beurre, Chamontelle, virgouleuse, Cressane, winter beurre, or grey good wife: Holland bergamot, St. Germain bonchretien, Easter St. Germain, Colmar, St. Martial, St. Martin Sire, peur d'Auch, winter russelet, winter thorn. very buttery'; small winter button pear, good Lewis of winter, ambrette, eschasserie, winter Scotch achan, dean's pear, vert longue, grosse muscat, grosse blanquette, Swiss bergamot, royal d'hyver, St. Michael, larychard. Baking and stewing pears, viz. great black pear of Worcester, Uvedale's St. Germain, Parkinson's wardens, catillac double-flowered; or may also adopt any other late hard autumn and winter pears, large or small, for the same occasion.

Quinces (raised by layers, cuttings, grafting, &c. on small standards), Portugal quince, pear-shaped, apple-shaped.

Medlars, Dutch, Nottingham or English, large bay-leaved.

Services, common wild service berry, sorb or sweet service, apple-shaped, pear-shaped, berry-shaped, (raised from seed, layers, cuttings, and grafting, always in standards).

Stone Fruit

Trees mostly propagated by grafting or budding, as standard espaliers and wall, bearing on the last 1, 2 or 3 year shoots.

Apricots, several fine varieties propagated by budding, early masculine, large orange, Roman, Turkey, Algier, Breda, Brussels, and Moorpark or Dunmore, peach apricot.

Nectarines, Fairchild's early Newington, red Roman, scarlet, murry, elruge, brugnione, late green, Peterborough, Temple, golden, violet, white.

Peaches, many varieties propagated mostly by budding, early white nutmeg, early red ditto, early avant, early Anne, red Magdalene, white Magdalene, small mignonne, royal George, early purple, noblesse, large mignonne, early Newington, royal Kensington, Malta peach, Montauban, old Newington, bourdine, late purple, nivette, Lisle, Bellegarde, Ramboulet, Rosanna, chancellor, la belle d'Vitry, large admirable; monstrous Pavie, late violet, superb royal, Catharine peach, a most fine large late fruit; la teton de Venus, belle chevreuse,

Cherries, a fine early summer fruit (propagated by grafting upon cherry-stocks, and the small black Welch by seed), small early May, May-duke, Archduke, Hertfordshire hearts, Harrison's heart (fine), morella, black heart, bleeding heart, white heart, Kentish, carnation, yellow Spanish, black corown, white groffian, lukeward, ox heart, small black Guigne, white Guigne, smallest wild black of the wood and hedges, ditto red.

Plums, many varieties (raised both in standards, wall-trees, and espaliers, by grafting and budding, see the monthly directions), early damask, white primordian, great black damask, little ditto, early Morocco, Orlean plum, green gage, blue perdrigon, white perdrigon, Fotheringham, fine red plum, blue gage, magnum bonum, or large white egg plum; red imperial, or red magnum bonum; drapel, or myrabalan; Chester plum, maitre Claud dauphine, agniot plum, Roche Corbonne, drap d' or, grosse queen Claude, petite queen Claude, la mirabelle, red Wentworth plum, red diaper, red queen mother, damson, Brignole plum, bullace, small white damson, damas noir d'Tours.

Almonds, for their kernels of the fruit (propagated by budding upon almond, palm, or peach stocks, or common sorts from kernels, mostly for half standards, &c. and occasionally in wall and espalier trees), tender shelled, hard shelled, sweet kernelled, bitter kernelled, sweet Jordan almond, dwarf, and double flowered dwarf, both principally for ornaments.

Berries.

These trees or bushes are either standards or espaliers, and bear on the sides of the young and old wood.

Berberry, common and fruited, red without stone, white fruited, black (propagated from suckers, or layers, laid in small standards).

Gooseberries, small early red, large, Dutch red, smooth green, hairy green, black, common hairy red, white globe, large yellow, large amber, large tawny, with many intermediate new sorts (raised by suckers, cuttings, layers, and seed, mostly in standard bushes).

Currants, common red, pale red, champagne long pale red, long bunched red, white Dutch, white crystal, large pale and Dutch (by suckers, cuttings, and layers, in standard bushes, 6 or 8 feet asunder, and for walls. &c.)

Elders for elder wine, common black (by cuttings, and laid in standards, and rough hedges).

Grapes, many fine varieties, ripe in autumn, or in July, August, and November, &c. (propagated by layers and cuttings, all in wall trees), black sweet water, white early ditto white muscadine, black cluster, small black cluster, leaves brown, black Hamburgh, white ditto, royal muscadine, St. Peter's red Hamburgh, black Burgundy and Damascus, Frontigniac, red, black white, &c. Malmsey muscadine, blue chasselas, white ditto, black muscadel, white ditto, large Syrian, la cœur or Morocco grape, damson grape, white muscat of Alexandria, red Alexandrian, claret grape, raisin, Tokay. Some large and late sorts, as the Syrian, Alexandrian, and Tokay, require a hot-house; and by assistance many other sorts are forwarded to superior perfection,

Mulberry (raised by layers or cuttings, and sometimes by seed), the common black fruited is the only estimable sort for general culture; the white and red mulberry are raised only for variety, or the leaves of the white for silk worms.

Raspberries, common red, common white, large red, large white, double-bearing white, producing twice a year; smooth cane, double-bearing cane. gre

Antwerp, red, white raised by suckers, and planted in rows.

Figs, delicious autumn fruit (raised by suckers, layers, and cuttings, mostly in wall trees, or some sorts in dwarf standards); common blue, early long blue, small brown Ischia, curly white, large white, brown Malta, black and white Genoa, green Ischia, Madonna or Brunswick fig, Cyprian, Marseilles, long brown Naples.

Nuts.

Filberts and *hazel nuts*, several varieties (raised by grafting and layers to continue the principal kinds, others by suckers and nuts); large red and white kernelled filberts, large red Spanish hazel nut, great cob nut, most large long nut, large cluster nut, Barcelona, and common wood hazel nut (are generally all trained in standards, three or four to five or six feet.)

Walnuts (raised from the nuts, and trained in full standards), early thin shelled oval, round, large round, large, double, French, late walnut.

Chesnuts. Spanish.

For standards of the above, the principal sorts are *apples*, pears, plums cherries, mulberries, quinces, medlars, services, walnuts, chesnuts, berberries, filberts; sometimes apricots and almonds; but for general planting, allot the most plentiful of apples and pears, and next of plums and cherries; any of the other in smaller allotments occasionally: all of which, in proportion to their nature of growth, plant at twenty or thirty, to forty or fifty feet distance.

For wall trees—plant apricots, peaches, nectarines, figs, vines, plums, cherries, and pears, and sometimes a few choice eating apples; all planted fifteen to eighteen or twenty feet asunder.

For espaliers—apples, pears, plums, cherries, and medlars; and sometimes for variety, quinces, apricots, figs, vines, &c. all planted at the same distance as the wall trees.

Bushes as raspberries, currants, and gooseberries, are generally scattered over the borders or planted in rows four feet and a half asunder, by a yard in each row, or a few may be trained to wall and espaliers, and the larger ones as, elder, wild plums, &c. may be used as hedges or planted in any cut borders as shades.

When there are too many leaves, so as so shade the fruit they should be picked off

FLOWER GARDEN.

The flower garden is confined to the cultivation of hardy herbaceous, as the shrubs belong rather to the shrubbery.

The ground chosen for the purpose should be light and mellow, on the level or with a moderate slope, it may either be walled in or have a hedge, or what is better, if the adjoining ground belongs to the same owner, a sunk fence; if large it should be divided by internal hedges of laurel or yew, to protect the tender flowers. In laying it out it is better to surround it with a border at least three feet broad, and crossing it in various directions, according to its size and the fancy of its owner, with path.

Herbaceous flowering plants, are divided into annual, which decay entirely away after they have flowered, biennial, which mostly decay in the stem the first year, but emit a new stem the following spring, and then perish altogether, and the *perennial*, whose stems either remain over the winter or die down, but their roots or under ground stems remain for many years.

Annual Flowers.

These plants are sown, flower, and die in the course of six or nine months, and must again be sown the next year; they should be sown in the spring, at two or three times for succession of flowers, they are divided into *hardy*, *half hardy*, and *tender*.

Hardy Annual Flowers

May be sowed in the open ground, in borders, beds, pots, &c. in March, April, May, &c. mostly to remain where sowed, and the large sorts thinned; or some, as ten-weeks-stocks, mignionette, India pink, persicaria, sunflower, tobacco, amaranthus, and several others, are occasionally transplanted.

Adonis flower
Alkekengi
Alysson
Amaranthus, prince's feather, love lies bleeding
Antirrhinum, snap-dragon
Atriplex, red spinach
Balm, Moldavian
Balsam, yellow, or touch *me not*
Basil
Belvidere, summer cypress
Candy tuft, purple, white, Normandy, &c.
Catchfly, Lobels
Clary, purple-topped, &c.
Calendula
Caterpillar plant
Convolvulus, minor and major

Cucumber, spirting
Cyanus or corn-bottle, major, minor
Devil-in-a-bush
Gourd, squash, &c.
Hawkweed, purple, yellow, red
Hedge-hog trefoil
Honeywort, major
Indian corn
Indian pink
Ketmia, bladder
Kidney-bean, scarlet
Larkspurs, upright, branching, dwarf
Lavatera, red, white
Linaria, three-leaved
Mallows, curled, Venetian, oriental, &c.
Mignionette
Moonwort, honesty
Nasturtiums, major, minor
Nolana
Nigella, or devil-in-a-bush
Palma-Christi
Pansey, or heart's ease
Pea, sweet, purple, scarlet, white, black, painted lady, crown, winged, Tangier, &c.
Persicaria, dwarf, tall
Poppies
Scabious, sweet, starry, &c.
Snail-flower
Snap-dragon, three-leaved, major
Sunflower, dwarf, tall
Stock-gilliflower, ten-weeks
Stock, virgin
Strawberry spinach
Sweet sultan, purple, white
Tobacco
Ten-weeks-stocks
Venus' looking-glass
Venus' naval-wort

Tender Annual Flowers.

This class of annuals, like the hardy, are only of one summer's duration; and the greater part being less or more tender, are commonly sowed in a hotbed in March and April, to plant out in May and June; or they may be mostly sowed in a warm border under a frame, &c. from the beginning or middle of April till the beginning of May, for transplanting as above, except the tricolors, bicolors, and globe amaranthus, double balsam, browallia, and capsicum; the five former of which being rather of the class of tenderest annuals, do not succeed without the aid of a good hotbed till May or June. [See *Most Tender Annuals.*]

African marigold
Amaranthus, tree, tricolor, bicolor, globe
Balsams, double striped
Browallia, blue
Capsicums
Cape marigold
Cerinthe, honey-wort
China-asters, red, white, purple, and striped
Chinese pink
Chrysanthemums
Colutea, scarlet
Convolvulus

French marigold
Hollyhock, Chinese
Gourds, orange, trumpet, rock, pear-shaped, striped, squash
Jacobea, purple, white
Indian corn
Indian pink
Mignionette
Palma-Christi
Persicaria
Tobacco, broad, long leaved
Nolana
Love-apple
Ten-weeks-stocks
Sultan flower, yellow
Xeranthemums
Zinnia

Note—Some of the above are also arranged among the hardy annuals, but being, with the others, forwarded in a hotbed, they flower earlier in much greater perfection and beauty.

Most Tender Annuals.

This class comprises several very tender flowers, and some that are also ranged in the last class; but being raised and forwarded in full hotbeds till May or June, flower earlier in greater perfection; and principal sorts should generally be raised by that culture.

Sow the sorts in a hotbed in March or April, and when they are come up one, two, or three inches high, prick them in the same or a new hotbed, or some singly in pots; and when advanced several inches in growth, remove into a larger hotbed, still under glasses, and forward them till (m. l.) May, or (b.) June, then place them in the open air, some in pots, and others in the borders, except the humble and sensitive plants, which continue always under glasses, or some shelter, otherwise they will lose their sensitive property. The different species furnish several varieties.

Amaranthus, tree. tricolor, bicolor, globe
Balsams, double-striped
Browallia
Calceolaria, slipper-wort
Cannacorus, or Indian shot
Capsicum
Convolvulus, scarlet
Cock's-comb, dwarf, tall, &c.
Egg plant
Humble plant
Ice plant
Marvel of Peru
Sensitive plant
Stramonium, double

Small capital Biennial Flowers.

These are principally but of two years duration, at least in their continuance in good perfection, being raised from seed in the spring, flower the year following; then in some sorts, they almost wholly decay top and root; and in others, although they continue longer, they generally bebecome of a weakly straggling growth, and do not flower in equal perfection; though the carnations, pinks, and wall flowers, may be continued in a perennial state, the two former by layers, and pipings, and the latter by cuttings or slips of the young top shoots, in May and June, &c. as practised in propagating the double bloody kinds thereof; also sometimes rockets, double kinds, having the flower stalks cut down early in summer, before they begin to flower, promotes some bottom off-sets for propagation and occasional planting in May or June; likewise in sweet-williams, double, or any curious sorts, may be continued by layers of the bottom shoots in June or July.

These all raised from seed sowed in the spring, in March, April, or May, in beds, or borders; and in summer, when the plants are two or three, or four inches high, prick them in beds from six inches to a foot distance, to grow strong till autumn or spring following; then transplant them where they are to grow for flowering next year.

Canterbury bell flower
Carnations
Clary, purple-topped, &c.
Colutea, Ethiopian
French honeysuckle
Globe thistle
Moonwort, honesty
Pinks
Poppy, yellow horned
Rockets
Scabious
Stock gilliflowers
Sweet-williams
Tree mallow
Tree primrose
Wall flowers

Perennial Flowers.

The plants of this class are of several or many years continuance, and the same sort, they are all hardy and are divided into *fibrous rooted* and *bulbous or tuberous rooted*.—

1. *Fibrous Rooted.*

These plants are many of them very ornamental and are all of many years' duration, shooting up flower stems in the spring, which flower in their proper season, and decay in the autumn; the roots continuing several and some many years, flower in that order annually. Many of them are raised by seed sowed in the spring, the plants pricked out in summer, and transplanted in autumn, &c. to flower the year ensuing; and most of the sorts are also propagated either by parting the roots, slips, or off-sets thereof, in spring and autumn; some by cuttings of the stalks; others, as carnations, pinks, &c. by layers and pipings in summer; and some by slips of young shoots, as in wall-flowers. All the sorts may-be planted in borders, beds &c. and some of the more curious sorts in pots; all of which may either be planted in the spring, to flower the same year, or in autumn, for flowering the year following.

When the plants have grown, stick the tall growers and climbers, water them in the morning and evening in dry weather, and when they go out of bloom, and the stem decay cut them away. Those that are tender and rare may be protected with straw or glass.

Adonis
Acanthus, bear's beech
Aconite, or Monk's hood
Aconite, winter
Achillea, milfoil, yarrow
Alysson
Asters
Auriculas
Acorus, sweet rush
Anthyllis, scarlet
Antirrhinum, snap-dragon
Apocynum
Asclepias, swallow-wort
Astragalus
Aletris
Arum
Alkekengi, winter cherry
Arundo, Portugal reed
Agrimony
Ajuga, bugle
Adoxa, hollow root
Batchelor's buttons
Bean caper
Bear's breech
Balm, grand flowered
Bugloss, evergreen
Buphthalmum, ox eye
Bee larkspur
Campanula, bell flower
Campions, lychnis, rose
Cardinal flower
Carnations
Christmas rose
Cardamine, lady's smock
Chrysanthemum, bastard great white, &c.
Calamus
Columbines
Cyclamen
Circæa
Collinsonia
Cloud berry
Coronilla
Convallaria, lily of the valley
Convolvulus
Conyza, flea-bane
Cortusa

Candy-tuft, perennial
Clematis, virgin bower
Cowslip
Cowslip, American
Cranes bill, geranium
Cross wort
Daisies
Dog's tooth, violet
Dentaria, tooth-wort
Digitalis, fox-glove
Draba, mad-wort
Dragons
Drop-wort
Dock, bloody
Dittany
Eternal flower
Epilobium, French willow
Eryngium, sea holly
Eupatorium
Euphorbia, spurge
Elecampane
Feathered columbine
Ferula, fennel giant
Fair maid of France
Feverfew
Frankenia, sea heath
Flags iris
Fox-glove
Figwort
Fumatory
Flax, Siberian
Fraxinella
Gentiana
Gentianella
Golden locks
Globe ranunculus
Golden rod
Germanders
Greek valerian
Goat's beard
Geranium
Globularia
Goat's rue
Guaphalium, everlasting
Gundelia
Horehound
Hawk weed
Hollyhocks
Hemerocalis, day lily
Hedge mustard, double
Hepatica
Hop plant
Herb bennet
Herb Christopher
Herb Paris
Helonias
Helenium, or bastard sunflower
Horn rampion
Hydrastis, yellow root
House leek
Inula, elecampane
Iris, flower de luce
King's spear
Lamium, Archangel
Lady's mantle
Lady's slipper
Lady s smock
Leonurus
Lily of the valley
London pride
Lobelia
Linaria, toad's flax
Lunaria, moonwort
Leopard's bane
Lotus
Lupines, perennial
Lion's tail
Lychnis
Lychnidea
Loose strife, common, Virginia
Lovage
Lythrum, willow herb
Lizard's tail
Mallow, cut-leaved, musk
Madder
Marsh marigold, double

Madwort
Meadow-sweet, double
Meadow rue
Milfoil, yarrow
Milk vetch
Monarda
Moth mullen
Mint
Meadia, American cowslip
Mimulus, monkey flower
Myrrh, sweet
Mercury
Money-wort
Napæa
Nymphæa, water lily
Nepeta, cat mint
Nettle, snowy, &c.
Navel wort, blue Venus
Nightshade, American, enchanters
Onoclea, sensitive fern
Onosma
Ophrys, two-blade orchis
Orchis
Origany, marjoram
Orpine
Orobus, bitter vetch
Osmund, royal
Oxalis, wood sorrel
Paris, true love, or one berry
Peony
Panax, ginseng
Pansies, large Dutch, &c.
Poppy, Welch, oriental
Phlomis, Jerusalem sage
Plantain
Pilewort, double
Patience, garden
Primrose, common, tree
Polyanthus
Pink
Pea, everlasting
Polypody, fern
Plumbago, lead-wort
Potentilla, cinquefoil
Pulmonaria, lungwort
Pyrola, winter green
Phlox, lychnidea
Ragged Robin
Rag-wort
Ranunculus
Rhexia, Virginia loosestrife
Rhubarb
Rose-campion
Rumex
Sanicle
Saxifrage
Skull-cap
Side-saddle flower
Sneezewort, double
Soapwort
Solomon's seal
Sedum, or less house-leek, &c.
Snap-dragon
Serapias, bastard hellebore
Sawwort
Stone crop
Sophora
Spiderwort
Sunflower, perennial, bastard
Swallow wort
Scabious
Spurge
Silene, viscous campion
Scepter flower
Spiræa, herbaceous kinds
Stock gilliflower (rather biennial)
Strawberries
Strawberry trefoil
Stachys
Throatwort
Thrift
Tansey

Tragopogon, goat's beard
Tree mallow
Tussilago, colt's foot
Tradescantia, or Virginia spiderwort
Trillium, true love
Toad flax
Tormentil
Uvularia
Urtica, nettle, snowy, &c,
Valentia, cross wort
Valerian
Veronica
Vervain
Violet
Viper's bugloss
Virgin's bower
Viscous campion
Wall flower. (See also Biennials)
Wake Robin
Wormwood, Roman, &c.
Willow herb
Willow, French
Wolf's bane
Water lily
Winter green
Water leaf

Bulbous rooted flowers.

The roots of these flowers are onion like either solid, as in tulips ; or tunicated, of several involving coats, as the onion, and lily, like composed of many fleshy scales They are divided into

Spring and Autumnal Sorts.

The spring and summer flowering bulbous and tuberous root should be planted mostly in autumn, from the middle or latter end of September, or any time in October, to the end of November or December, in mild weather, in beds, borders, or some in pots, as before observed ; and what is omitted in autumn, should be planted early in the spring, principally in February ; they flower in spring and summer, from January or February till August ; some in autumn, September, and October : when done flowering in summer, &c. their stalks and leaves decay and the roots finish their growth, and remain dormant for some time, that is the proper period for taking them up either annually, especially all the capital sorts, or others once in two or three years, to separate the off-sets ; the roots may then be dried and housed for planting again in autumn, &c. as when taken up at the above time, they will keep several months out of the ground, though the lily kinds with scaly bulbs should be planted again soon in autumn. They propagate abundantly by off-sets of the roots, separated when the main bulbs &c. are taken up as above.

Allium, garlic, moly, &c.
Amaryllis
Asphodel
Bulbodium
Belladonna lily
Colchicum
Crocus
Crown imperial
Daffodil
Fritillaria
Guernsey lily
Hyacinth
Jonquil
Iris, bulbous
Ixia
Liliy
Martagon
Narcissus
Ornithogalum
Pancratium
Polyanthus narcissus
Sisyrinchium
Snow drop
Squill, or sea onion
Tuberose
Tulip

The autumnal kinds are planted in July and August, and will flower in autumn, and the leaves continue till April or May, then wither; this is the proper time for removing these sorts.

Amaryllis, several sorts
Colchicum
Crocus, autumnal
Guernsey lily
Lily, Belladonna
Pancratium, sea narcissus

Tuberous Rooted Flowers.

The roots are knobbed, solid, or fleshy, and are many small tubers connected in a head; all of which are durable or perpetuated in the root by off-sets, and are mostly hardy for the open ground, to plant in beds, borders, pots, &c. in autumn and the early part of spring; and to be taken up when the flowers decay, either annually or once in two or three years, to plant again in autumn.

Anemone
Ranunculus, various sorts

These roots may be blown in glasses, but they should not be done so for two years following, as they become weak: but they should be planted in the earth for three or four years, to regain their strength. They may be forced.

The Dahlia

Is a native of Mexico, and was brought to Europe by Baron Humboldt, and introduced into England by Lady *Holland* in 1804. There are two species, the Superflua and *Frustranea*, so distinguished with reference to the *fertility* and barrenness of the rays of the flowers; so much attention has been given to this beautiful plant since its introduction into this country, that upwards of two hundred named sorts, single and double, may be found in our nurseries. It is propagated by separating the roots, by cuttings, by grafting on the stock of the same flower, and from seed.

The seed should be sown in March, or earlier, on heat. The young plants, if necessary, to be picked out into pots or boxes, and left under cover in warmth until the end of April, when they may be planted out, where they are to remain, covering each plant for some time with an empty pot at night, to avoid injury from frost. They thrive best in loam, and require a clear open space to grow in. As it is expedient to retain only a single stem to each plant, and as several shoots will often arise from one root, all but one should be removed, and these slips will make excellent plants; they should be removed in the spring time, and will blow in the season, but a little later than the parent shoots. The roots are taken up before winter and put out in spring, when all danger of frost is over; but previously to doing this they must be potted and well attended to in the green-house, where they should be kept, the object being to bring them as forward as possible in order to obtain early flowers without forcing; the earliest flowers will appear in June, and this great acquisition to our garden will continue to blow until the frosts destroy it. The roots may be preserved through the winter by being laid on a cool floor in a green-house or fruit room, and may be covered with coal ashes, sand, or other dry substances, but when thus covered they should be placed with their crowns erect, and exposed to the air. In spring the roots, if small, may be left as they are; if large, they may be divided. In the division each tuber that has a bud growing on it, will orm a plant after the division has been made.

SHRUBBERY.

In that part of the ornamental ground which is designed : the cultivation of shrubs and trees. They are divided o deciduous and evergreen kinds: the former defoliate, shed their leaves in winter; and the latter continue in en leaves all the year. There are many species and va us of each, in flowering shrubs and trees, for decora tive plantations; and of forest trees, both to plant for woods and large plantations for ornament, shelter, shade, &c., and also the different sorts of fruit trees.

The distinction between shrubs and trees is principally that the former grow with short stems, dividing into several branches, and growing with bushy heads; and the trees advance with a single upright stem to a considerable height

---

Deciduous Shrubs and Trees.

This class is for ornament, and planting in shrubberies, clumps, and other plantations, &c. It comprises flowering shrubs, ornamental and other principal tree kinds, generally employed in shrubberies and other decorative plantations, and are all of a hardy growth, to plant in the open ground in any common soil, situation, or exposure.

These plants are of various growths and dimensions, from one, two, or three feet, to ten or fifteen feet high in the shrub kinds; and some climbers, as Virginia creeper, will ascend fifty feet high or more, on walls, &c. The tree kinds grow from twenty or thirty to upwards of fifty or sixty feet: they are *raised* by different methods, in spring and autumn, viz. by seeds, suckers, layers, cuttings, &c. and may be *planted* any time in open weather, from October or November, till March or April.

Abele tree
Acacia, false, rose-flowering, three-thorned
Agnus-castus, chaste tree
Alder tree
Almond tree, dwarf
Andromeda, several sorts
All-spice tree, or calycanthus
Althæa frutex
Apple, many varieties, Siberian crab, American cherry-shaped
Apricot tree
Aralia, angelica tree
Ash tree, common, flower*ing dwarf*, pendulous or *weeping*, mountain
Amorpha
Arbor Judæe
Amalanchier
Annona or papaw tree
Azarole
Azalea, or American honeysuckle
Bay, deciduous
Benjamin tree
Baccharis
Berberry tree
Beamtree, white
Bignonia, trumpet flower
Broom, Spanish
Bladder senna
Birch, dwarf
Bramble, double flowering &c.
Bird cherry
Buckthorn

Beech tree
Birch tree
Briar, sweet
Bupleurum, hare's ear
Byzantine nut
Bonduc, Canadian
Bladder nut
Caragana
Cassioberry bush
Catalpa
Ceanothus, New Jersey tea tree
Cephalanthus, button tree
Candleberry myrtle
Cherry tree, common, wild black, red, &c., double blossomed, bird cherry, perfumed
Clematis, climber, virgin's bower
Currant tree, red, white, black, and double flowered
Chionanthus, fringe tree
Chesnut, the Spanish dwarf, horse
Cinquefoil, shrubby
Cockspur thorn
Clethra
Cob nut
Christ's thorn
Cornel tree, cornelian cherry
Coriaria, tanner's sumach
Crab, Siberian, sweet scented, American
Coronilla, jointed podded colutea
Creeper, Virginia
Cypress tree, deciduous
Cytisus
Chinquequin, dwarf chesnut
Celastrus, staff tree
Diervilla, dwarf yellow ho*neysuckle*
Dircæa, leather wood
Dog wood
Diospyrus, or Indian date-plum
Elm tree
Elæagnus, wild olive
Euonymus, spindle tree
Elder tree, black and white berried, cut-leaved, striped-leaved
Euphorbia, spurge
Frangula, berry-bearing alder
Fothergilla
Fig tree
Filbert tree
Genista, dwarf broom
Ginkgo, maiden hair tree
Gale, sweet
Guelder rose
Gooseberry tree
Glastonbury thorn
Germander, shrubby
Guilandina
Groundsel tree
Glycine, kidney-bean tree
Gum tree, sweet
Glasswort, shrubby
Halesia
Hamamelis, wich hazel
Hawthorn, double flowered, &c.
Hazel nut
Hydrangea
Honey suckle
Horn-beam
Horse chesnut
Hiccory tree
Hypericum
Jasmine
Jesuits' bark tree, false
Itea, Virginian
Indigo, bastard
Iron-wood

Judas tree
Kidney-bean tree
Larch tree
Laburnum
Lucca broom
Lac, or varnish tree
Lime tree
Leather wood
Lotus, bird's foot trefoil
Lilac, common, Persian
Liquidamber, or sweet gum
Lombardy poplar
Magnolia, deciduous
Maple
Mezereons
Mespilus, medlar tree
Mulberry tree, black, red, white
Mimosa, silk-flowering acacia
Mountain ash
Menispermum, moon seed
Myrtle, candleberry
Nettle tree
Nyssa, tupelo tree
Nightshade, woody
Oak
Olive tree, wild
Ononis, rest harrow
Passion flower
Plane tree
Paliurus, Christ's thorn
Peach tree, dwarf
Periploca, Virginia silk
Pear tree, double flowered
Plum tree
Pishamin plum
Pomegranate
Privet
Poison tree
Poplar, Lombardy, white, &c.
Phlomis, Jerusalem sage
Quince tree, dwarf, &c.
Raspberry, flowering, common
Rhododendron, or bastard rose bay
Roses, a great variety
Rhamnoides, sea buckthorn
Rest harrow
Rhus, sumach, &c.
St. John's wort
St. Peter's wort, shrubby
Sallow tree
Sassafras tree
Service tree, wild, cultivated
Smilax, rough bind weed
Southern wood
Spiræa
Syringa
Stewartia
Storax tree
Sycamore tree
Tamarisk tree
Tartonraire
Trefoil, shrubby
Tutsan
Traveller's joy
Tupelo Tree
Tulip tree
Umbrella tree, magnolia
Viburnum
Virgin's bower, &c.
Vine
Vitex, Agnus-castus, chaste tree
Vaccinium, bilberry, whorts, craneberry, &c.
Walnut tree
Willow, weeping, &c.
Weeping ash
Widow wail

Evergreen Shrubs, and Trees.

These are also used for shrubberies and other ornamental plantations, and are of different species and varieties, continuing green at all seasons of the year. These plants may be *planted* in spring and autumn. They are *raised* by different methods, viz. many by seed, some by layers, others by suckers and cuttings; and are of various sizes in growth, being from one, two or three feet, to fifty, or near a hundred in some species, as the pine trees in particular.

Alaternus
Andromeda
Arbor vitæ
Arbutus, or strawberry tree, eastern, trailing
Bay tree
Bignonia, evergreen
Box, dwarf, tree
Broom, Spanish, &c.
Cassine, South Sea tea tree
Cistus, rock rose
Cypress tree
Crab tree, evergreen
Cedar of Lebanon
Cedar, red, &c.
Cork tree
Cytisus, hairy, evergreen
Ephedra, shrubby horsetail
Empetrum, crowberry
Epigæa, trailing arbutus
Eleagnus, wild olive
Erica, heath
Euonymus, evergreen
Fir, a variety of
Groundsel tree
Hyssop
Honeysuckle, evergreen
Holly tree
Juniper
Ivy
Kalmias
Laurel, common, and Portugal
Laureola, wood laurel
Lavender cotton
Ledum, marsh cistus
Laurustinus
Magnolia, evergreen
Olive tree
Oak, evergreen
Phillyrea
Privet, evergreen
Purslane tree, sea
Pyracantha, evergreen thorn
Phlomis, Jerusalem sage
Pine tree
Prinos, or smooth winter berry
Rhododendron, dwarf rosebay
Rosemary
Rue
Rose, evergreen
Savin
Savory, winter
Spindle tree, evergreen
Sweet briar, evergreen
Tea tree, New Zealand
Thyme
Widow wail
Whortleberry, evergreen
Yew tree

Trees and Shrubs for Hedges.

The different sorts, both of the deciduous and evergreen kinds, are raised principally from seed; such as hawthorn, beech, hornbeam, lime, maple, alder, privet, sweet briar, holly, yew, bay, &c. others chiefly by cuttings, as laurel, elder, poplar, willows; and some by suckers, as roses, lilac, filbert, hazel, &c. some also by layers, all either in spring or autumn; and may be planted for hedges in those seasons. [See *Hedges* in the Pleasure Ground for *March*, *November*, &c.]

And after being planted for hedges, they, in their advancing young growth, should be timely trained in proper regularity for that occasion, by moderate clipping in summer or autumn; cutting the sides even, but the tops more sparingly in their advancing young growth, till nearly at the intended height; clipping, however, the weak and runaway top parts to some regularity, that the whole may advance equally, and thicken in a regular manner; generally training them somewhat tapering, or gradually narrower or thinner to the top.

To keep full-grown hedges in order, they should be clipped every year in summer or autumn; or to continue them in the most neat regularity, the principal garden hedges should be cut twice in summer, in June or beginning of July, and in August or September; though common deciduous hedges may be occasionally clipped in winter; clip evergreen hedges only in summer or autumn, from June or July, to September.

Deciduous Kinds.

Alder
Beech
Berberry
Black thorn
Elder
Elm tree, English
Filbert
Hazel
Haw, or white thorn
Hornbeam
Lime tree
Lilac
Maple, common
Poplar tree, Lombardy
Privet
Rose
Sweet briar
Willow

Evergreen Kinds.

Alaturnus
Box tree
Bay tree
Laurel
Laurustinus
Holly tree
Juniper
Phillyrea
Privet, evergreen
Yew tree

In the above kinds for hedges of the deciduous tribe, the haw, or white thorn is superior for a general hedge-fence against the depredations of man and cattle, by its close thick growth and thorny armature; the beech, hornbeam, elm, and lime, were formerly in much repute for ornamental garden hedges; elder, poplar tree, and willow, are occasionally used for external hedges on the sides and tops of banks, or along the sides of watery ditches, &c. also alder, in marshy situations; the privet also forms a very neat close garden hedge, soon runs up in a close regular growth, and is proper to plant for an internal hedge, both to fence and shelter particular compartments, as may be required, and occasionally for an outward hedge; the other sorts, as lilacs, roses, sweetbriar, and berberry, are sometimes used on different occasions, as inferior hedges, or for variety, and some for ornamental flowering, particularly lilacs and roses; and the filbert and hazel may be planted by way of a hedge, to run up in a natural growth above, both to form a shady walk, and to produce a plentiful crop of nuts.

And in the evergreen kinds, the holly and yew are the principal sorts to form close effective hedges; of which the holly is superior for an outward hedge as a fence. The laurel forms a fine ornamental hedge in pleasure grounds, &c., and to run up high for shade, shelter, or blind; likewise the bay makes a pretty evergreen hedge, but being somewhat tender, is liable sometimes to be much damaged by severe frost, in a rigorous winter; the laurustinus is also sometimes planted hedgeways for its ornamental flowering, both as a fence and ornamental hedge; and the other evergreen sorts are formed into hedges occasionally for ornament and variety, or to fence in any particular compartments.

Forest Trees.

This class consists both of deciduous and evergreen kinds, and is used for timber in woods, or any considerable plantations, or as may be required.

Deciduous Forest Trees.

These are mostly of the tree kinds, growing from twenty or thirty, to fifty or near a hundred feet, in the different sorts. They are raised principally from seed, and some occasionally by cuttings, layers, suckers, &c.

Alder tree
Ash tree
Beech
Birch
Chesnut, Spanish, horse
Crab tree
Cherry tree, wild, black, red, &c.
Cypress, deciduous
Elder
Elm
Hazel
Hickory
Hornbeam
Horse-chesnut
Larch tree
Lime
Maple
Nettle tree
Oak
Pear tree
Plane tree
Poplar
Sallow
Sycamore
Tulip tree
Walnut
Willow

The above are of several species and varieties, and are proper to plant for timber plantations and coppices of underwood, and for any large ornamental or sheltering plantations, shade, &c. Many of them are raised by seed, and some by cuttings, layers, and suckers, in spring and autumn; the trees of proper growth may be planted in these seasons, or occasionally in winter, in open weather.

Evergreen Forest Trees.

These are mostly trees of large growth, from twenty or thirty to fifty or sixty feet or more; or some as in pines, grow near a hundred feet high, all proper to plant, both for timber and in any ornamental plantations required.

Cedar of Lebanon, &c.
Cork tree
Cypress tree
Fir tree
Holly, common
Oaks, evergreen
Pine tree
Yew tree

The above are raised mostly by seed in the spring, in *beds of light* earth; and the trees may be planted in the *respective plantations*, both occasionally in autumn (October and November), and in the spring months, all in mild open weather.

GREEN-HOUSE PLANTS.

Green-house plants, consisting of trees, shrubs, and herbaceous perennials, and many of the succulent tribe, or such as have fleshy leaves, stems, and branches, are all tender exotics, originally natives of warm climates, both of the southern and other warm parts of the continent of Europe, and of Africa, Asia, and America, that in this country are unable to live in the full air at all seasons; but being less tender than the general tribe of hot-house plants, which are natives of the hottest regions, they require only protection in winter in a green-house, from October till May or June, without the aid of artificial heat, except occasionally when very rigorous frosts prevail.

They comprise in the whole a large collection of many genera, furnishing numerous species, principally for variety, curiosity, and ornament, being of various different growths and dimensions, and of which the following arrangement comprises a list of the names of the genera, &c. of those the most generally cultivated as green-house plants; many of which are also the generic or family names of many species of hardy plants, as may be observed in the foregoing lists, as likewise of hot-house exotics; but as the intended limits of this small work will not admit of enumerating all the respective species, we can only give the principal generic names, and some principal species, &c. as before intimated.

All these plants, though originally inhabitants of warm countries, will succeed in this in the open air all summer, from May or the beginning of June till the beginning or middle of October; then must have the protection of the green-house all winter, allowing them fresh air every mild day, by opening some of the windows, more or less, according to the temperature of the weather, from nine, ten, or eleven in the morning, till three, four, or five in the evening, then shut close all night; afford them occasional moderate waterings during the winter season, and be careful also to give them additional protection in severe frosts, by keeping the windows constantly shut, and sometimes defended with shutters or mats, &c., and when the frost is rigorous, if the green-house has a fire flue, make a moderate fire morning and evening, to repel the effects of the frost, but this is not necessary in mild weather; observing in the whole, the general directions for the green-house in each month.

In constructing green-houses, it is always advisable to have proper fire flues, ranged within along the front and back, communicating at one or both ends, in which to have fires occasionally in winter when severe frost, or in very wet, damp, or foggy weather.

Achillea, yarrow or milfoil, silver leaved Egyptian
Adelia
Agave, great American aloe, common great American aloe, being remarkable in flowering but once in the same individual, and that not till of many year's growth, from sixty or eighty, to an hundred years, then shooting up in the centre, with a tall strong stem, from fifteen or twenty to thirty feet, supporting a vast pyramid of numerous yellowish flowers.—Aloe, variegated or striped leaved, Virginian, broad leaved of Vera Cruz, viviparous or childing, fœtid or stinking, karatta or deep green leaved
Aloe Africana, or African aloe, many species, viz. ferox or great thorny aloe, mitre shaped, sword-leaved, plicated or fan, upright, triangular, pentangular, partridge breast *variegated*, glaucus or sea *green, soap* aloe, marked *like soft soap*: spotted leaved, tongue shaped, keel shaped, Succotrine, spiral, watery pearl tongue, large pearl, less pearl, cob-web, cushion, dwarf, hedge hog, humble spineless, &c.
Adiantum, Capillus Veneris, or maiden hair
Aletris Uvaria, or sword-leaved aloe aletris
Ambrosia Mexicana
Amellus lychnites, or ever-flowering cape aster
Anagyris fœtida, or stinking beau trefoil
Andromeda, several species
Androsace villosa
Andryala
Anthericum, spiderwort, several species
Anthyllis, or kidney vetch, Barba Jovis, Jupiter's beard, or silver bush
Antirrhinum, snap-dragon, two or three sorts
Aralia Spinosa
Arbutus, strawberry tree, uva-ursi, or bear-berry, Andrachne or oriental arbutus
Arctotis, several species
Arduina bispinosa, or two-thorned cape buckthorn

Aristolochia, birth-wort, two or three sorts
Artemisia, mugwort, two species
Asclepias fruticosa. shrubby swallow-wort
Aspalathus Cretica
Asparagus, several shrubby sorts
Asphodelus fistulosus
Aster fruticosa, or shrubby aster
Astragalus Monspessulanum
Athanasia, golden locks
Atraphaxis undulata
Atropa frutescens
Baccharis, plowman's spikenard
Baltimora erecta
Bosea, yervamora golden-rod tree
Bubon Macedonicum, or Macedonian parsley
Buphthalmum, ox eye
Bupleurum frutescens
Buxus, box tree, Minorean
Cacalia, foreign colt's foot
Calceolaria Fothergilli
Calendula fruticosa, shrubby marigold, grass leaved
Callisia repens
Calla Æthiopica
Callicarpa Americana
Campanula, or bell-flower, three species
Canarina, Canary campanula
Cassine, or Hottentot cherry
Catenanche cœrula
Ceanothus, African alaternoides
Celastrus, staff tree, two or three species
Centaurea, centaury
Ceratonia, Siliqua, carob-tree, or St. John's bread
Chenopodium, wild orach
Chrysanthemum, corn marigold
Chryscoma, goldy locks
Cineraria, ragwort
Cissampelos casapeba
Cistus, or rock rose, many sorts
Citrus, citron tree, comprising also—the lemonum, or lemon tree: aurantium, or orange tree; China orange, Seville ditto, willow-leaved ditto, myrtle-leaved ditto, dwarf nutmeg ditto, three-leaved ditto, thorny citrus, or lime
Cliffortiai ilicifolia
Clutia
Colutea frutescens
Convolvulus, or bind weed, several sorts
Conyza, flea-bane, several species
Coronilla, or jointed podded colutea
Cotula, shrubby tansey
Cotyledon, navel wort
Crassula, lesser orpine
Croton sebiferum, or tallow tree
Cypressus juniperoides, or Cape cypress
Cyclamen, Indian
Digitalis Canariensis
Diosma, African spiræa
Dionœa muscipula, or Venus fly-trap
Dolichos, or creeper
Erica, a beautiful flowering plant of the heath kind.

of which there are many varieties, such as the African, three-flowered, many-flowered, tube-flowered, curve-flowered, long-flowered, Mediterranean, grandiflora, persoluta
Erinus
Eriocephalus
Euphorbia, spurge
Galenia
Genista, dwarf broom, Canary and Montpelier broom
Geranium, or cranes-bill, numerous species and varieties, viz. common scarlet, horse-shoe. scarlet, balm scented, rose scented, ivy leaved, variegated leaved, oak leaved, fulgid, or flaming; cordifolium, or heart leaved; gouty stalked; lanceolatum, or spear-leaved terebinthinum, or aromatic ; cucullatum, hooded, or hollow leaved; vine leaved, musk smelling, sorrel ditto, lady's mantle leaved, winged leaved, nosegay flowered, pink ditto, and many other varieties
Gladiolus, sword lily, several species
Gnaphalium, tree everlasting
Gordonia lasianthus, or loblolly bay, downy leaved ditto
Gorteria
Grewia occidentalis
Halleria lucida
Hermania
Hippia frutescens
Hopea tinctorea
Hyoscyamus aureus, golden henbane
Hypericum, St. John's wort
Jasminum, or jasmine tree, great flowered Catalonian, Azorian, most fragrant yellow Indian
Iberis, candytuft tree, several species
Ilex Asiatica
Juniper, Bermudian cedar, Phœnician cedar
Justicia adhatado, Malabar nut
Ixia, many species
Kiggelaria Africana
Lachnæa conglomerata
Lantana, American viburnum
Lavendula, lavender-tree, Canary
Laurus, bay tree, three or four species
Lavatera olbia, tree mallow
Linum maritimum, sea flax
Lotus, bird's foot trefoil
Lycium, prickly box thorn
Marrubium pseudodictamnus
Medeola asparagoides
Medicago arborea
Mentha mint, shrubby Canary
Mesembryanthemum, or fig marigold, many species of various singular and curious growths mostly succulent
Moræa
Myrsine, African box
Myrica, candleberry myrtle
Myrtus, or myrtle, orange leaved, box leaved, three

leaved, broad leaved, upright, spreading, Roman broad leaved, rosemary leaved, dagger pointed nutmeg, narrow reflexed-leaved, blotched leaved, striped leaved, &c.
Nerium oleander, or rose bay
Olea, olive tree, several species
Ononis, rest harrow
Ornithogalum, or star of Bethlehem
Osteospermum, hard seeded chrysanthemum
Othonna, ragworts
Pancratium Carolinianum
Passerina, sparrow-wort
Passiflora, or passion flower, three leaved, round leaved
Paulinia aurea
Periploca Africana
Philadelphus aromaticus
Phlomis purpurea, or purple, leonurus or lion's tail
Phylica, bastard alaternus
Phyllis nobla
Physalis flexuosa, alkekengi, winter cherry
Pistachia nut tree
Polygala, milk wort
Prasium major
Protea, silver tree, several species
Pteronia
Punica, pomegranate tree
Rhododendron, or dwarf rose bay, three or four species
Rhus, sumach, several species
Rosa Indica, Indian rose
Royenia
Rubia peregrina
Ruscus androgynus, or Alexandrian laurel
Rudbeckia lacinata
Sagina, pearl wort
Salicornia, jointed glasswort, shrubby
Salsola capensis, Cape glasswort; fruticosa, or shrubby
Salvia, or sage, several species
Sanguisorba, burnet, two species
Saxifraga, saxifrage, several species
Scabiosa, scabious
Schinus molle
Scilla, squill or sea onion
Scrophularia, figwort
Sedum, stone crop, &c.
Sempervivum, house-leek, tree sedum, globe bearing, chicken, Canary sedum, cobweb sedum
Senecio, groundsel
Sideritis, iron wort
Sideroxyton, iron wood
Silene, viscous campion
Smilax, or rough bind weed; sarsaparilla, and several other species
Solanum quercifolium
Soldanella alpina
Spartium, broom, several species
Stachys, or base horehound, several species
Statice, or sea pink, shrubby
Struthiola
Styrax, or storax tree
Tarchonanthus, or African fleabane
Taxus, or yew-tree, two species
Tetragonia

Teucricum, Germander, several species, as marum, Syrian, &c.
Thuja orientalis, Chinese arbor vitæ
Thymus mastichena, or mastic thyme
Trachelium cœruleum, or blue throat-wort
Trichilia glabsa
Trichomanes Canariensis, or Canary fern
Triopteris Jamaicensis
Thea, or tea tree, green, Bohea
Trollius Asiaticus, or Asiatic globe flower
Tropœolum majus, or greater double nasturtium
Verbena, Indian vervain
Vitex, or chaste tree, three leaved
Wachendorfa, thyrsiflora
Xeranthemum, everlasting flower
Yucca, or Adam's needle; aloe leaved, thready leaved, dragon-leaved
Zygophyllum, or bean caper

HOT-HOUSE PLANTS.

Hot-house plants are exotics originally from the hottest parts of the world, natives principally of Asia, Africa, and the hot regions of south America, and from the hot southern parts of Europe; and being all too tender to live in this country, without the assistance of artificial heat, require the constant aid thereof, under the continual shield of a hot-house or stove, and consist both of the tree and shrubby tribe, as also of many sorts of herbaceous plants, of the fibrous, bulbous, and tuberous rooted kinds, with many different sorts of the succulent tribe, being such as have fleshy leaves, stalks, and branches; the whole being always kept in pots, and mostly continued constantly in the hot-house, principally for variety and curiosity, some producing most beautiful ornamental flowers, others of singular curious growths; and one species in particular, (the ananas or pine apple plant) is superior for its production of delicious fruit so universally admired, and now produced plentifully in the highest degree of perfection, in our pinery hot-houses.

As, therefore, there are numerous species and varieties of hot-house plants, retained principally for curiosity or variety, the following list comprises the names of a few of the most noted genera, many of which have several species.

All, or most of the exotics in the list, denominated *hot-house plants,* inhabitants of the hottest countries in different distant parts of the world, require the constant protection of a hot-house or stove in this country; heated, or warmed internally, by having a constant bark bed all the year, especially in a pinery or general hot-house; assisted by fire heat in winter, from October or November, till May; and the plants kept always in pots, which in some require to be kept constantly in the bark bed, but more particularly all the pine apple plants; most of the others may be placed upon shelves, &c. allotting the bark bed principally for the pines, and continuing the pots always plunged therein, to have a constant moist heat about the roots, otherwise they will not produce fruit in good perfection. Or, any other of the more tender or curious plants may also be occasionally plunged in the bark bed if room, particularly when required to forward them in growth, or to have any particular sorts flower sooner, or in greater perfection. As likewise, in planting or shifting into other pots, and in planting cuttings, &c. by plunging the pots into the bark bed, the heat thereof expedites the fresh rooting of the plants, quickens the effective emission of roots from cuttings, layers, suckers, &c. and also accelerates the germinating or vegetating of seeds of tender exotics.

But in most hot-houses, the pines are considered as the principal residents, cultivated in large quantities for their much admired fruit; the other exotics are generally esteemed as secondary objects, merely for variety or curiosity. The same degree of internal heat proper for the pine-apples, is applicable to all the others.

Adiantum, capillus veneris, or true maiden hair
Albuca, or bastard star of Bethlchem, major and minor, &c.
Aletris, or hyacinth flowered aloe
Agave, or great American aloe (see green-house plants); viviparous, or childing; fœtid, entire leaved; Vera Crucian, broad-leaved; karatto or deep green leaved
African aloes, many curious species and varieties, will also mostly succeed in a green-house. [See the green-house plants
Amaryllis, lily daffodil comprising the Jacobea lily, Belladonna ditto Guernsey ditto, Ceylon lily, &c.
Alstrœmeria, purple spotted and striped
Amomum, or ginger
Anona, or custard apple
Antholyza, or Æthiopian corn flag

Apocynum of Ceylon, &c.
Arctopus, prickly
Arduina, two spined
Arum, Wake Robin
Arundo bambos, bamboo, or Indian cane
Asclepias, swallow wort
Aster, shrubby
Banisteria, bay leaved
Basella, or Malabar night shade
Bauhinia, mountain ebony
Begonia, several species
Bignonia, or trumpet flower, two or three species
Bixa, or scarlet arnatto
Bombax, silk cotton tree
Bontia, or Barbadoes wild olive
Bromelia ananas, or pine apple
Borassus flabellifer, or fan-leaved palm
Brunia, Æthiopian
Buddleja, globular
Cacalia, foreign colt's foot
Cactus, or melon thistle, torch thistle, creeping cereuses, Indian figs
Camellia, Japanese rose
Canna, Indian shot
Capparis, or caper tree
Capsicum, shrubby
Carica, or papaw tree
Caryota, date palm
Cassia, wild senna
Catesbæa palmetto, or dwarf palm
Chironia
Chrysophyllum, star apple
Cissus, wild grape
Cinchona officinalis, or Peruvian bark
Cytharexyon, fiddle wood, or fidele wood
Claytonia
Clusia flava, yellow Jamaica balsam tree
Coccoloba, sea side grape
Cocos, cocoa nut tree
Coffea, coffee tree
Commelina, African
Copaifera, balsam of capevi tree
Cordia sebestina, lignum aloes
Cornutia, pyramidal
Corypha, umbelliferous palm
Costus, Arabian
Cotyledon, navel wort, calabash tree
Crinum, or lily asphodel
Crotolaria
Crassula, lesser orpine
Croton, tallow tree
Cycas, sago palm
Cyclamen, Indian
Cynanchum, or American scammony
Cytisus, Indian
Cynosurus, Indian
Daphne Indica, or Indian spurge laurel
Dais cotmifolia
Dioscorea, West India yam
Dracæna, or dragon tree
Dracontium, dragons
Duranta
Echites, Jamaica dog's bane
Ehretia, bastard cherry
Elephantopus, or elephant's foot
Erythrina, coral tree
Eugenia, or pomme rose
Euphorbia, or spurge, many species

Fagara, or iron wood tree, piperita or Japan pepper
Ferraria, cape starry iris
Ficus, fig tree, sacred or poplar leaved, and several other species
Fritillaria, corona regalis, or the royal crown fritillaria
Gardenia, or the Cape jasmine
Genipa, American
Gesnera, hoary leaved
Geranium; there are many species and varieties, that are also cultivated in the manner of green-house plants
Gladiolus, or the sword lily; a tender flower, of which there are three or four sorts
Gloriosa superba, or superb lily
Gossypium, or cotton tree
Gomphrena perennis, or the perennial globe amaranthus
Grewia, oriental
Guaiacum, or lignum vitæ
Gordonia decandra
Guarea
Guettarda speciosa
Guilandina Bonduc, or the nickar tree
Hæmanthus, or the blood flower
Hæmatoxylum, logwood
Helicteris, screw tree
Heliocarpus, American
Heliotropium Peruvianum
Hernandia, or Jack-in-the-box
Hibiscus, or the Syrian *mallow*
Hippomane, or Manchineel tree
Hura, or sandbox tree
Hymenœa, locust, gum elemi tree
Jatropha, or French physic nut
Illicium Floridanum, or the Floridan starry anise seed tree
Indigofera, or Indigo
Jussieua
Justicia, or the nut of Malabar
Ixora, or the American jasmine
Kœmpferia Galanga
Lagerstrœmia, Indian
Lantana, or American viburnum
Leea
Lechea major
Limodorum tuberosum
Laurus, or bay tree, comprising the cinnamomum. or cinnamon tree; cassia, or ever-flowering bastard cinnamon tree; and American bay, or alligator pear
Lobelia, or cardinal flower
Lotus Jacobæus
Lychnis coccinea, or scarlet Chinese campion
Ludwigia ovata
Malpighia, the Barbadoes cherry
Malvariscus, or Indian viscous tree mallow
Mammea Americana, or the American mammee apple
Mangifera, or Indian mango tree

Maranta, Indian flowering reed
Martynia perennis
Melastoma holosericea
Mesua, or Indian rose chesnut
Michelia
Mimosa, or sensitive plant, and Indian acacia; many varieties
Musa, or plantain tree
Morea
Munchhausia speciosa
Murraya exotica
Nyctanthes or Arabian jasmine; double flowered, orange leaved, large double, or grand duke of Tuscany's, and arbor tristis or sorrowful tree
Myrtus, myrtle tree; Ceylon odorous myrtle
Olea odoratissima
Ophioxylum serpentinum
Origanum Ægyptiacum
Oxalis, wood sorrel, some tender sorts
Pancratium, sea daffodil, several beautiful flowering kinds
Parkinsonia aculeata
Passiflora, or passion flower, many tender species
Patagonula Americana
Paulinia
Pentapetes Phœnicia, or scarlet Indian vervain mallow
Petiveria, Guinea hen-weed
Phyllanthus, or sea laurel
Physalis, or Alkekengi, winter cherry, many varieties
Phytolacca, or American *nightshade*
Pimento, or allspice
Piper, or pepper several species
Piscidia Erythrina, bastard coral tree
Pisonea aculeata, the prickly pisonia, or fingrigo
Plumbago, leadwort, some tender sorts
Plumeria, West Indian jasmine
Poinciana, Barbadoes flower fence
Polypodium
Portlandia
Portulacca anacampseros, or lesser house leek purslane
Psidium guava
Pterocarpus
Pteris, fern, Domingo fern
Ranala, American box thorn
Rauwolfia
Rivinia
Rondeletia Americana
Rosa Sinensis, or the China rose; flos horæ, or flower of an hour, several sorts
Saccharum, sugar cane
Sapindus saponaria, or the soap berry
Senecio, groundsel
Sida, or Indian mallow
Sideroxylon, iron wood
Solanum, nightshade, many tender sorts
Sophora, or silvery colutea, several kinds
Spondias, American plum
Stapelia
Sterculia, dirt wood, or Ceylon nut

Swietenia Mahagoni, or the mahogany tree
Tamarindus Indicus, or Indian tamarind
Theobroma, the chocolate nut tree
Thunbergia speciosa
Tournefortia
Triumfetta Lappula
Tropœolum majus, or great double nasturtium
Tubernæ montaua citrifolia
Tulbagia capensis
Turneria ulmi-folia, or elm-leaved turneria
Vinca, periwinkle rose of Madagascar
Volkemaria
Wachendorfa
Winterana, Winter's bark
Xylophylla, love flower
Zamia

THE mould left from decayed leaves is one of the richest kind, and best suited for dressing, but it is difficult to be procured. Collect all the leaves that have fallen off the trees, raked together in a wet state and placed in a heap, with a little earth thrown over them to hinder them from being blown about, and to promote their rotting, and they will, if frequently stirred up, be fit for use in a year's time.

Destruction of Insects.

The best means to destroy insects is the fumigating with tobacco, by means of a syringe, fumigating bellows, or what may answer near as well for a small garden,—a large pipe and a bladder, but it is difficult to apply it, except in green-houses or closed places, as the smoke must, to have effect, be left in for some time; but I have found that the best means to fumigate beds, standards, and wall trees, is to have an oiled cloth, that is, several yards of calico sewed together, and covered with two coats of drying linseed oil, and left to become dry, and placed either against the wall or on the bed, and then to put the nozle of the bellows or pipe under it, and then let the smoke remain for an hour or two, when the insects will be found to be killed as effectually as in a green-house: after which they ought to be earthed in.

Some apply tobacco tea, made of boiling four pounds of tobacco stalks in a gallon of water, and putting about a pint of this to a gallon of plain water: water the plants with it; but this is not so effectual as the smoke. Others use sulphur instead of tobacco, but it is more difficult to apply.

Neither of the remedies will do when the plants and *trees are* in flower or fruits, as the application might destroy the flowers, and give an ill flavour to the fruit. But a constant stream of water from a small sized engine, will often wash them away.

Ear-wigs and Wood-lice

May be caught in any hollow stems and hollow caps, as lobster claws, or small paper caps put amongst the plants, as they run into such places, when they should be burnt, or blown into water, every morning and evening.

Wasps and Flies

May be caught in bottles half filled with treacle and water, and killed by touching them when at their prey with a feather dipped in oil, on their backs. The nests of wasps, which are generally found in the south or west banks, are best destroyed by putting a squib into the aperture, and closing it with clay, and then digging the nest out while the insects are stupified, and burning it.

Slugs and Snails

Should be picked off every morning and evening, and little hollow boxes, and holes under tiles, may be made round the root of trees to catch them in: when they attack young crops, the ground round the roots of the plants should be sprinkled with soot or unslacked lime, care being taken not to touch the plants with it, and then the plants should be watered. When insects infest standard fruit trees, it is well to place a ring of tar about two feet from the ground to kill them, without they are near an ant's nest, which should never be destroyed in a garden, as they destroy an immense number of insects, and will catch more than the tar will prevent.

Green-house plants, and indeed any except fruit trees and esculent vegetables may be washed or watered with a solution of common bitter aloes, which will kill any insects or slugs, &c.

For the mealy *Pine Bug*, the best remedy is hot water, or soap and water made into a lather; some add sulphur *nux vomica*, and quicksilver, but this is all quackery, as *they have* no effect in a crude state.

To destroy Lichen on the Bark of Trees.

Wash the bark by means of a soft brush, with a mixture of lime and cow urine diluted with water, in the autumn. Common lime-water I have found succeed nearly as well.

Protect Robins, Blackbirds, and Crows,

All insect-eating birds, and care should be taken not to destroy the *insect-eating insects*, as the true black beetles ants, &c. for they are the friends of the gardeners.

To destroy Mice and Small Birds.

The best means for a gardener is to form traps, either of two large tiles, and three pieces of wood, placed into a triangle, and of four bricks and two sticks and a forked twig. For destroying cats, the common small toothed rat trap, or the fox traps, are the best.

GUANO,

AS AN ARTICLE OF MANURE FOR GARDENING.

THIS substance, so complicated in its formation, comprehending almost all the elements of vegetable structure, has excited great attention in the agricultural world. It has long been known as the staple manure of the Peruvians, but was little noticed by our writers till after the formation of the English—now *Royal* Agricultural Society. Seven years, therefore, have not elapsed since its introduction to the British farm.

Sir Humphry Davy thus describes it in his Sixth Lecture (on MANURES), delivered before the Board of Agriculture prior to the year 1812: "Amongst excrementitious solid substances used as manures, one of the most powerful is the *dung of birds* that feed on *animal food,* particularly the dung of sea-birds. The *guano*, which is used to a great extent in South America, and which is the manure that fertilizes the sterile plains of Peru, is a production of this kind. It exists abundantly, as we are informed by M. Humboldt (who in 1804 had introduced it into Europe), on the small islands in the South Sea, at Chincha, Ilo, Iza, and Orica. Fifty vessels are laden with it annually at Chincha, each of which carries from 1,500 to 2,000 cubical feet. It is used as a manure only in very small quantities, and particularly for crops of maize. I made some experiments on specimens of guano sent from South America to the Board of Agriculture in 1805. It appeared as a fine brown powder: it blackened by heat, and gave off strong ammoniacal fumes; treated with nitric acid, it afforded uric acid. In 1806, MM. Fourcroy and Vauquelin published an elaborate analysis of guano. They state that it contains a fourth part of its weight of uric acid, partly saturated with ammonia, and partly with potassa; some phosphoric acid, combined with the same basis, and likewise with lime; small quantities of sulphate and muriate of potassa, a little fatty matter, and some quartzose sand."

Thus far had chemistry proceeded above forty years since; the more refined and accurate analyses of modern science have gone much further; and we refer with much confidence to the authority of Dr. Ure, who, in Vol. V., Part I., of the *Journal of the Royal Agricultural Society*, gave the general detail of his investigations of several samples of the best South American Guano, which is now with greater interest referred to, as it has been fortunately in our power, by very long extended investigation of an excellent specimen from Peru, to verify most of the results detailed in that accurate notice of experiments by Dr. Ure. Horticulturists also begin to take interest in guano, especially when applied in the liquid form; and unquestionably, if it can be obtained pure and entire—the principles upon which it acts being at the same time clearly understood—there cannot be a more fertilizing medium. But an especial degree of caution must be required, since it is known that adulteration of a degrading and fraudulent nature is practised by dishonest dealers The *Gardeners' Chronicle* has worthily exposed these malpractices; it has taken up the subject warmly, and recurred to it with a zeal which cannot be too highly appreciated. Every real partisan of the practical gardener and amateur, who is at all versed in analysis, ought to make cause with the spirited editor of a work which commands the horticultural public; and, therefore, we feel the more inclined to pass over in review the chief points of Dr. Ure's processes, especially as each has been to a great extent established, and proved to be equally scientific and veracious.

The inquiring reader, by following the detail now to be entered on, will not only be enabled to appreciate the mode in which true guano, as a manure, can be supposed to act beneficially or detrimentally upon vegetation; but he will perceive how susceptible of injury, from natural agencies, is the genuine article *itself;* and also—as an inevitable consequence of such liability—how readily fraudulent dealers are enabled to form artificial compounds of materials, capable of imitating, in point of colour, a substance so changeable in outward appearance, and so subject to chemical disarrangement of its constituents.

The best sample of Peruvian guano appears to be of a peculiar pale brown colour, with a faint tint of pink, in the state of coarse powder, interpersed with some small fragments of whiter saline matter. Such a specimen was examined by Dr. Ure, and found of first-rate quality. It emits a singular urinous odour, to some persons very offensive; but it is neither ammoniacal nor putrid.

The specific gravity of good guano may vary, according to the proportion of salts it contains, from 1·70 to 1·75, water being the unit. If a hundred grains be dried at a heat not exceeding 212°, it will lose from 7 to 15 per cent. by evaporation of moisture. One sample lost 25 grains of 180—leaving 155.

According to Dr. Ure, 100 grains triturated and digested with distilled water, lost 30½; leaving 69½ of insoluble matters when dried at the heat of boiling water.

The guano of Saldanha is of greyish stone colour, judging by the sample sent for trial, and does not appear of equal quality with that from Bolivia.

The first process of analysis is to detect and separate from the filtrated fluid portion, which is pungently saline to the taste, all the ammonia that is in direct chemical union, as a base, with some acid. This, and every subsequent process, is too refined and perplexing to be performed by any other than a professional chemist, who has at command a complete apparatus. It is effected by the agency of quick-lime, which exerts a superior affinity for the acid, and liberates the ammonia. But though minute accuracy cannot be aimed at, any one who will take the trouble to rub together in a mortar a small quantity of guano and half as much lime, or add the lime to a solution of guano filtrated through blotting-paper, will soon be satisfied that a great quantity of volatile smelling salts in a caustic state is immediately developed.

The result to be drawn from the experiment is this. The ammonia fixed in the guano must be the agent which confers upon it much of its manuring qualities; and, therefore, if the guano, when offered for sale, smell of ammonia, it is in a state of progressive decomposition, and will continue to deteriorate rapidly.

But what is the acid which, in general, holds this ammonia in a state of chemical union ?

A three-fold set of experiments will most clearly answer the question, and at the same time reveal several other components of the soluble portion of guano: the acids generally present are three. They are the *phosphoric*, natural to fish; the *hydrochloric*, commonly termed muriatic acid; and the *sulphuric;* and three tests or re-agents are employed to discover them. *Nitrate of barytes* throws down a copious precipitation of sulphate of barytes. *Nitrate of silver* detects hydrochloric acid by the predominant affinity of that acid for silver, with which it combines in the form of an insoluble chloride. Iron, in the condition of an acetate or nitrate, attracts phosphoric acid, and this is precipitated in its turn as *phosphate of iron*, by adding to the solution ammonia in excess.

These facts may be verified in some fine samples of guano, as we have proved; and from one of such Dr. Ure thus tabulates the constituents of 47 parts of 100, soluble in water:—

1. Sulphate of Potash, with a little Sulphate of Soda .	6·00	parts		
2. Muriate of Ammonia . .	3·00	,,	Ammonia	0·95
3. Phosphate of Ammonia .	14·32	,,	,,	4·62
4. Sesqui-carbonate of Ammonia	1·00	,,	,,	0·34
5. Sulphate of Ammonia .	2·00	,,	,,	0·50
6. Oxalate of Ammonia . .	3·83	,,	,,	0·89
7. Water	8·50	,,		
8. Soluble organic matter and Urea	8·95	,,		
Total	17·60		Total	7.30

Thus 7·30 parts of ammonia are traceble in the 47 parts of soluble salts of the 100 grains of guano. The *urea,* one of the essential constituents of urinous excretions, is detected and separated by a process too refined for common analysis. In birds, it is well known, that the fluid excretions of the kidneys pass off united with the solid alvine fæces; hence the superiority of the dung of pigeons, poultry, and particularly of sea-fowl, which last feed upon aliments rich in saline and phosphated elements.

In some specimens of guano we meet with little of the salts numbered 2, 4, and 6; but all the samples of pure and undecomposed quality and condition, which afford no evidence of free ammonia, abound in Nos. 1, 3, and 8.

The analysis of the solid insoluble remains of guano discovers, first, the quantity of *uric or lithic acid,* which appears to exist chiefly in combination with *ammonia.*

Secondly, *ammonia.* This is separated by distilling a portion along with half its weight of slaked quick-lime, reduced to the state of cream, by mixing with it eight or nine times its weight of water. Ammonia in a caustic state rises, and is condensed with a portion of the water in a liquid form. But still more ammonia remains masked and not discernible in the azotised substances, till they are made to yield it by ignition with caustic soda and lime.

As *bones* contain phosphate of lime, in the condition of a *di*-phosphate, or bone-phosphate, wherein the lime exists in excess, it follows that some of this substance will be found in the excretions of sea-fowl. It is detected by reducing the insoluble portion of guano to a dry powder, after the removal of the uric acid, and igniting it to a full red-heat: the organic portions are then driven off, leaving the bone-phosphate combined with magnesia and carbonate of lime, and also a small quantity of sand and other impurities. Finally, by the application of chemical reagents, we discover that the constituents of the insoluble portion of guano are the following:—

Urate of Ammonia, according to Ure	14·73
Sub-phosphate of lime	22·00
Phosphate of Magnesia and Ammonia	4·50
Oxalate of Lime	1·00
Undefined organic azotised matter	9·52
Flinty deposit	1·25
	53·00

These represent 1·55 of ammonia. But more of it is traceable by a process thus describe by Dr. Ure, in his analysis of another parcel: "25 grains of the dry guano afforded by ignition in the combustion tube, along with 200 grains of the mixed lime and hydrate of soda, 4·165 of ammonia, which correspond to 16·66 in 100 parts of the dry, or to 15·244 in the natural state; leaving 5 parts of the quantity of potential ammonia, or of ammonia producible from the decomposition of its azotised, organic matter."

The sum of what has been quoted and adduced is this: Guano when pure is the most comprehensive of manures; but being exceedingly liable to spontaneous decomposition, it is highly probable that no two samples can exactly correspond. Hence, also, it becomes the subject of gross adulteration and debasement. It is, therefore, always to be suspected, and the only way to secure its permanent efficiency, even when purchased under the strictest warranty, is to keep it, till employed, in close, dry, air-tight vessels, like large oil or stone jars, and never, by any means, to permit it to come in contact with any lime, potassa, or soda. If the faintest odour of smelling salts be discoverable, it is certain that the urea is in a state of progressive conversion into ammonia, and it would be prudent to correct the alkaline tendency by applying a little diluted sulphuric or muriatic acid to the guano—stirring and intermixing, till the volatile odour be subdued. Even sea-coal and wood-ashes contain mineral alkali sufficient to disturb the ammoniacal combinations.

That which is lacking in sound Peruvian guano is the decomposable organic matter which stable manures *and night* soil (cloacine) can supply. Land requires a *bulk* of such substances, in order to perfect those decompositions which supply heat, gases, and moisture in the nascent state. Guano can restore all the chemical inorganic elements to impoverished and wasted manures; and, therefore, it is of the utmost utility to the farmer, and the gardener also.

General manuring will always be required till we attain a certain knowledge of particular specific qualities; therefore, if a portion of so valuable an appliance as guano—say one-fiftieth part—be added to horse-droppings, farm or fold-yard manure, the farmer or gardener may be certain that he has deposited in the soil a bulk of decomposable substances enriched with *phosphates*, *sulphates*, and *muriates*, all of use to certain vegetables, and applicable to their peculiar temperaments.

Our great chemist, Davy, appreciated the utility of guano at a period when few, if any, persons had anticipated its introduction to British agriculture. "It is easy," he observed, "to explain its fertilizing properties; from its composition it might be supposed to be a very powerful manure. *It requires water for the solution of its soluble matter*, to enable it to produce its full beneficial effect on crops." Again: "The rains in our climate must tend very much to injure this species of manure, where it is exposed to them soon after its decomposition; but it may probably be found in great perfection in caverns or clefts in rocks haunted by cormorants and gulls. I examined some recent cormorants' dung, which I found on a rock near Cape Lizard, in Cornwall. It had not at all the appearance of the guano; was of a greyish white colour; had a very fetid smell, like that of putrid matter; when acted on by quick-lime it gave abundance of ammonia; *treated with nitric acid* it yielded *uric acid*."

The reader would do well to compare all that has been stated with a very valuable article on the "History of Guano, and its use among the Peruvians," written by Mr. William Walton, for the *Journal of Agriculture*, Edinburgh, Nos. 6 and 7, Oct. 1844, and January, 1845. The nature and proper application will then be more clearly understood.

A few words will further convey some idea of the importance of purity in this powerful compound.

All azotised salts tend to confer verdure on vegetation—nitrates of soda and ammonia, and common saltpetre, are such compounds, and can be applied independently; but guano abounds in the urinous salts of ammonia, and, therefore, represents, and greatly surpasses, those in ordinary stable and fold-yard manure. The cereal grains abound with phosphates, and guano contains ample store of those salts: in it are also muriates or chlorides, and sulphates, with bone-earth in a state of extremely fine division; and, finally, a moderate proportion of azotised organic matter capable of slow decomposition in the soil. But it lacks *humus*, or that bulk of decomposable, vegetable matter which affords hydro-carbon and carbonic acid.

As an adjunct—an appliance—it may fairly be estimated as altogether pre-eminent. It may be partially *imitated;* and the dung of birds with finely-powdered bones, will be its nearest representative; but, being the excretion of sea fowl, we can never hope, by any artificial preparation, to manufacture a manure that shall ever combine so many powerful constituents in so small a bulk.

Finally, if the gardener apply it in pot culture, he must be very cautious to use it in minute quantity; and we think entire, in a state of mixture with the soil, rather than as a liquid manure. The soluble portion has been shown to consist of sulphates, muriates, and oxalates, whereas the solid portions contain bone earth in its finest state of extreme division, and much animal matter that will act as a slow manure. A thimbleful of rich, pure guano would be ample for strawberries and pines, or for balsams and succulents, in 24-size pots. Why should we use only the *salts*, and reject the solid and more durable constituents?

For ground culture, we would suggest that guano be always used in conjunction with some other spent manures, and not alone, unless applied as a liquid manure in dry weather, when one ounce, *stirred up* in three gallons of pond water, will prove very available. *The solid parts* will then percolate the loose earth to a *considerable* depth.

REMARKS
ON
WARDIAN CASES, AQUARIUMS,
FLOWERS FOR THE DRAWING ROOM, &c.

WARDIAN CASES.

As the growing taste for gardening has made rapid strides, and from small to large gardens, from out-of-door culture to conservatories, greenhouses, and other horticultural buildings, and at length forced itself into the drawing-room, where, unfortunately, the finest plants do not continue long in health, the WARDIAN CASE becomes a very popular subject: and would have continued so, had not the public been deceived as to its real claims on our attention, and its proper constitution and use. But it was described as a wonder, and its capabilities were considered a miracle. Only possess yourself of a Wardian Case properly planted, and the inmates were to "live for ever, and want for nothing." It was, therefore, placed in the window as a picture would be hung on the wall; and, in due time, the plants sickened and died. It is our desire just now to state why, and to show how, the evil may be got rid of; but we propose to take in the whole range of drawing-room gardening: Wardian Cases, or more properly speaking, miniature conservatories, aquariums for water-plants, and animated beings belonging to that element, and, lastly, plants in pots; and we hope to show that all these may be so managed that they may preserve their freshness and beauty for a long period, and be only subject to the casualties that will occur among plants and animals even in their wild state.

DRAWING-ROOM GARDENING.

Wardian Cases, or miniature conservatories, have been made in all forms, prized for a time, and thrown by as an incumbrance, by scores of people as soon as the plants became shabby. As toys they were popular. The wonder of the public at the idea of plants growing without air, water, or common attention, was further excited by the scientific jargon of the day; and the astonishment lasted as long as the plants, but instead of being extinguished all at once, it cooled down by degrees, as the inmates of the case declined. The truth is, that like many things that are over-rated, the Wardian Cases disappointed the public. Men who pretend to be scientific, jump at conclusions like a hungry trout at a fly. They immediately discover the why and the wherefore—publish them to the world—highly colour all that is inviting—set people buying the novelty only to be disappointed; whereas, if the article were fairly described and properly pointed out, the expectation of the buyer would not be raised too highly, his attention would be given, and, as he realized all his hope, he would be satisfied.

Wardian Cases were first described as air-tight; the supposed fact of plants living without air, or any other moisture than the case contained before closing, was explained thus: "The moisture which evaporates, condenses on the glass, trickles down the sides, and returns to mother-earth or so much of her as may have been enclosed; therefore, as none can escape, it never wants more." To show that we are not exaggerating as to the intention of the toy as first given to us, the operation is thus described and exemplified by its early advocates. After asserting that the plants will live without any fresh supply of earth, air, or water, we were told that :—

"The most ready way to try the experiment is to procure a glass vessel—for instance, one of those glass jars used by druggists and confectioners; introduce some soft sandstone or some light soil, filling one-sixth of the jar with it, and taking care that the earth be very moist. yet allowing no water to settle at the bottom of the jar; plant a fern in the earth, then cover the jar with its glass lid, first supplying a slip of wash leather round the rim of the jar, which will pretty nearly cut off the communication between the internal and the external air; NO FURTHER ATTENTION WILL BE REQUIRED; the fern will live, thrive, and probably seed, the seed also vegetating, and, at last, *the jar will be too small for its contents: no watering is needed;* the moisture of the earth will exhale, condense on the glass, trickle down its sides, and return to the earth whence it arose."

These, then, were the instructions under which hundreds commenced growing ferns in air-tight cases, and of course failed. Much as we said and wrote against such absurdity at the time, the makers of such cases pushed the thing to some purpose. If the writer above quoted knew he was deceiving us, it was not very creditable; if he wrote such stuff in ignorance, it is only another exemplification of the truism, "a little learning is a dangerous thing." He knew that Messrs. Ward and Loddiges used to send plants long voyages in air-tight glass cases, and he never calculated upon the difference between a six months' voyage, and an indefinite term; nor did he give it a thought how much worse the plants were for their six months' confinement, and how anxiously and quickly their consignees released them from their prison. We have given these particulars to show how the public was deceived by the theory propounded, and the instructions founded on it, as well as to account for the total failure of hundreds, who attempted to grow plants without any more air, water, or nourishment than was shut up with them. We shall treat the subject in another way: first, without showing any predilection for any particular form, we shall have a few words to offer as to the general features that should be preserved in the construction, and say why? secondly, we shall notice the proper soil; thirdly, the plants best adapted for success; fourthly, we shall show that there must be attention, and describe the nature of it; lastly, as plants are as liable to casualties in a case as they are in the garden, we shall give the best instructions we can as to the relief or the removal of any that are sick.

THE PLAN OF A WARDIAN CASE.

We preserve the name, though there is not one feature of the original retained, and we expect that all miniature greenhouses and conservatories will be called Wardian Cases as long as they exist. The form is immaterial, if not too tall. In Covent Garden Market they may be seen in great diversity—round, square, octagon, hexagon, oblong, oval, and of all sizes. In the gallery of the Conservatory there is the most extensive variety that we know of; and if people do not mind ascending a narrow stone staircase, as if they were going up to a church-belfry—rough enough to deter the generality of visitors, and altogether to defy ladies dressed in the present fashion—they will reach the most interesting, though not the gayest, part of the market. The cases are for the most part, well made, and some are already filled with appropriate plants; but we should recommend cases to be made as wide as the glass of the window. The soil box should be six inches deep, lined with zinc, the bottom perforated with small holes, say as large as a four-penny piece, and one to every square six inches, and bevelled off inside, that the moisture may pass freely. The glazed part of the structure should be as light as possible, with metallic bars, and the fewer the better. Two feet is as high as we should like them, that is, eighteen inches for the upright glass, and six inches for the roof; for it must be borne in mind that no object is gained by a high slope, because it is not like a house top to throw off water, but simply to give light; one of the sides should have a door wide enough to allow of our reaching the most distant part to wipe the glass inside when necessary, and take up or put in a plant if we desire it. For effect, we should not have it deeper from front to back than twelve inches, for it is not quantity that we require. A few good specimens must be better than a crowd concealing each other. The roof may be a slope on each side to a ridge in the middle, and the ends kept square, or rather upright, with a single triangular pane of glass at each end. It will be thus seen that we repudiate the air-tight principle altogether, and that we go exactly contrary to the chemist's-bottle plan, which enjoins no outlet for water and no inlet for air. We have given our notions what a case should be for effect, but we will leave every one to the enjoyment of his own taste in construction, so he takes care that the soil box allows six inches of soil, and is perforated at the bottom—the glass portion not too tall, for the further a plant is from the glass, the more it will draw up—and that it is so managed as to be placed close to the glass of the window. Then, we have another important provision to make—as the ladies would most likely complain if the water that comes through the holes dripped on a fine carpet—the stand must be so contrived that it shall receive all the drainage, be that little or much. If the window has a seat that the stand may rest upon, no legs are required; but if it be a recess, and legs are wanted, let the surface of the soil be raised even with the bottom of the window, unless you desire to show the solid part of the structure; if so, it must be raised higher. Comply, however, with the principal conditions, and you may do as you like.

THE SOIL AND DRAINAGE.

On the subject of drainage the discoverers of the close-bottle system have given way altogether; they admit now that the cases should have a bottom with a peg in it, to let out superfluous water; but this is begging the question altogether, for the effect of the one hole must be very unequal. If open, the soil in its immediate vicinity must be dry, while the most distant portion will be moist; and if closed, it may as well be away altogether. On each of the holes in your soil box place a flat bit of broken flower-pot, and other pieces may be laid all over the bottom a good inch thick; upon these put a thin layer of the fibrous refuse after peat earth has been sifted. The soil best adapted for all the plants that do well with the least attention, may be thus prepared: Loam from rotted turfs, that is to say, turfs cut as if for laying down for a lawn, stacked until the grass has rotted into mould; this is invariably a tolerably good loam, enriched with vegetable mould, and full of fibre half-decayed; of this, two parts by measure, after it has been rubbed through a sieve that would pass a common nut; of peat earth, chopped small and also passed through the sieve, one part. This well mixed, is of itself a safe compost, but the other fourth part should be half silver-sand and half dung rotted into mould. This must be well amalgamated, so that it shall be of equal quality all over; but as ferns delight in stony soil, and especially sandstone or other porous material, and the roots may be seen clinging always to lumps within their reach, take broken flower-potsherds, sift them through the sieve used for the soil, and then through a common cinder sieve to get rid of all the dust. Of these small lumps, you may mix one part by measure to five parts of the compost, and see that it is fairly distributed through it. With the compost thus formed fill the soil box, and water it until the wet runs through into the receptacle provided for it; and this must be so constructed that the bottom of the box cannot touch the water, for that would stop the drainage. In fact, the drainage would be incomplete if the bottom of the box rested on a flat surface. The case would now be ready for planting. To show how easy it is to account for the general failure of ferns in all the air-tight and water-tight cases, all respectable authorities agree that ferns when even grown in pots must have drainage. Mr. Moore, of the Chelsea Botanic Gardens, in his "Hand-book of British Ferns," says: "Pot ferns must have thorough drainage. One-fourth of the depth of the pot must be occupied by drainage material, which may consist of potsherds broken to the size of nuts and walnuts, rejecting the finer portions." How then can ferns grow where there is no drainage at all? All who tried it killed them, though some wanted a good deal of killing, and most of them lived for a time. The knowledge, therefore, that all the early efforts failed, and that Wardian Cases by scores were abandoned because the plants invariably declined when the exclusive system was identified with them, ought by no means to deter the novice from adopting them, because the cause of general failure will be removed in the cases recommended. We have now only to consider the plants best adapted to ornament them, and to flourish in comparative confinement.

CHOICE OF PLANTS.

Presuming that you have your case all complete as directed, we next come to the choice of plants, on which much depends. We have observed among the many which failed a number of ferns of totally different habits: some requiring very great moisture; others wanting, and naturally growing on dry, arid soil; some usually found growing out of walls, others flourishing only in swamps. Now, it must be obvious, that however pretty these may appear at first, the better some grow, the worse others must, so that in a very moderate time half decline and perish. The object is to get as much diversity of foliage as we can among those which grow best in still localities, and in ordinary, but moderately good, soil. In those nurseries which abound in ferns, and where collections are kept, we have only to tell the dealers the purpose for which we require such plants, and they will for their own credit, supply only such as they know will succeed; but, if we have to collect them ourselves, we must be guided in our choice by something. For this purpose, we subjoin lists of those which do best together, and of such varied foliage as form the best contrast. We could give a much more elaborate catalogue, and in fact we shall do so at the close; but, bearing in mind that the great fault of most, even modern, cases is, that they are too crowded, we recommend but few. Plants, like animals, want breathing-room; wherever they are too close (even in a green-house that admits air) it is destructive; how much more fatal is it then when there is little or no relief? Half-a-dozen subjects well done are better than a crowd, but something depends on the size we get them. We may begin with a number of small things and thin them out when they get too large for the case, or grow in each other's way.

Mr. Kennedy, who has made these subjects his study for years, and who is well acquainted with both the structure and furnishing of the cases, recommends a practice somewhat different to ours; but in gardening of all kinds, there are many different ways of arriving at the same end. Very often we find two composts prepared by different persons, whereas, though differently described, they are the same in effect; for instance, say that for a particular purpose one man directs us to take two parts loam and one part leaf-mould; another will say, use loam from rotted turfs. There is a difference in words, but loam from rotted turfs is one-third leaf-mould, by reason of the grass and fibre rotting among it. Besides this, there are many things that are equally good and appropriate, which to the common observer appear different. However, we give Mr. Kennedy's directions from a letter with which he has favoured us, and have no doubt that the subjects which he recommends are the result of his experience. He says: "The Wardian Case, universally acknowledged to be a most interesting appendage to the drawing-room, and the success of which depends greatly on its management, should be two feet by fourteen inches, and of a proportionate height, and perforated at the bottom. The aperture is necessary to draw off the superfluous moisture, but *it should be closed at other times.* Put in an inch and a half thickness of broken pots, and a layer of rough fibrous peat. Fill the stand with mould within an inch of the top. This should consist of bruised peat, *a portion* of silver sand, and charcoal. Arrange the ferns with due attention to the foliage, and plant them a little higher than the level of the surface, which should be highest in the middle. A few pieces of rock or sandstone on the top of the soil among the plants adds greatly to the effect." Mr. Kennedy does not go into details sufficiently to guide those who do not even know what a Wardian Case is, but his directions would guide any man who had seen the cases in use. Perhaps, having found that the bottom may be stopped *up at times,* he naturally recommends it, because there is certainly less trouble with a single hole and a stopper than there is a number of holes that cannot be stopped. But, we know how much of the mischief is done to plants in a dwelling-house by the neglect of the owners; and if there were but one hole, we should recommend it to be always kept open, because it can always be seen whether the plants are too dry, and water can always be supplied. The superfluous moisture alone will run off, even if the hole be open; and as no evaporation can escape, the soil retains its moisture for a long time. Ferns, when once established in a CASE, give less trouble than almost any other description of plant, and although they are neglected for a long period, they may have lost very little of their beauty—at all events those sorts which will bear neglect. Such as are in their natural habitat drowned sometimes, and almost baked at others, should be chosen for growing in these cases, if they are to be abandoned to their own vitality—their own power of endurance; but with cases such as we have recommended, they might almost live for years without care; while with attention they may flourish, and we have had them growing well in cases where the soil was well drained by perforated bottoms, for very long periods. The choice of plants is everything.

Before we proceed to give a list of ferns and other subjects adapted for the Wardian Case, we must notice a flower-pot which forms an excellent substitute in a small way, and which seems particularly appropriate for growing that beautiful tribe of plants. In general, it is formed like a common flower-pot, but round the top rim there is a gutter which will hold water or wet sand, and glasses are made, of which the edges rest in this gutter, and when properly charged, it excludes all air but that which is shut up in it. Saturated sand is better than water would be, and there is this advantage—the soil in the pot is made to suit the particular plant destined to grow in it; and being a single object, uninterrupted by any other plant, its graceful foliage is seen in perfection. There are many ferns which will thrive in pots even without the cover, but the glass over it keeps its foliage beautifully clean, and we may have a dozen different pots with as many varieties of plants. The glass has only to be lifted off when the plant requires water, and may be replaced in an instant, when, as the edge of the glass drops into its place, the foulest smoke will not reach it. Another advantage is, that when the fern has completely filled the glass, a taller one can be placed over it, and give ample room. The glasses are made generally in the form of a bee-hive or sugar-loaf, or like the glass shades over ornaments or wax flowers. There is in using these pots an opportunity of indulging one's taste, for they may be had from four or five inches across—which is as small as can be used with effect—to any dimensions. Ferns may be put in these pots very small, and be allowed to grow for years without any interruption, only occasionally watering and cleaning the glass. Many who cannot or will not have a Wardian Case, will have one or more ferns grown in this way at each window, because they can be removed at any time. These pots ought to stand in earthen saucers, but no water should be allowed to remain in them. They must be emptied whenever the plant is watered. A collection of ferns in these pots is one of the most interesting subjects we can contemplate; and as every plant should be independent, the pot may be filled with a soil that is appropriate to each individual plant, while the shade or glass top may be flat or tall according to the growth of the specimen; and simply uncovering it at any time will give air, while the return of the glass to the gutter on the rim which is filled with water or wet sand, excludes the atmosphere as completely as if it were hermetically sealed. There is in these single pots or cases an opportunity not only of using an appropriate medium for the plant in the way of compost to grow in, but they can be kept wet for such as grow in swamps; dry for those which grow on walls and rocks; and, if necessary, kept in a warm place for such as belong to higher temperatures.

Again: a collection can be kept on a stand in the *drawing-room,* and moved into the sun or shade, as may be necessary for the well-being of the plants. We have dwelt rather longer than we proposed on the advantage of these pots, because we have, even since we began this work, had an opportunity of seeing them in use with no two ferns alike; the soils, varying from sandstone and brick rubbish to rich loam and all the varieties between them, perfectly adapted to the subjects growing in them, which we need hardly say are in rude health, and deserving of imitation by every body who values this interesting tribe of plants.

OUR FAVOURITE PLANTS FOR A CASE.

Gymnogramma leptophylla, found in Madeira, the Azores, Portugal, and Spain, and supposed to be indigenous to Mexico. It was "found in Jersey," says Mr. Moore, "in 1852, and then became added to the list of British species." It is a most interesting fern, growing six or eight inches high, and only half hardy, but is a favourite species, and well adapted for the Wardian Case, or covered pot.

Cystopteris Dickieana, a fern of delicate texture, with rich foliage, growing better in a close glazed case than in any other way, averaging four to six inches high, and very elegant, so that it is admirably suited to the covered pot.

Lastrea fœnisecii. This is said to be the most splendid of all the British ferns and evergreens. In the Wardian Case the new fronds are up before the old ones decay, and there is not a prettier object to be had for furnishing a miniature conservatory, or for growing in a covered pot.

Asplenium fontanum is adapted both for case and pot culture; from its small size and elegant form, it becomes one of the most interesting specimens in even a limited collection. Like the last, it is conspicuous in a small collection, but is also a very good object alone in a small pot. It is found in many different localities in England and Ireland.

Asplenium trichomanes, a small evergreen, and pretty. It grows on walls and rocks, and is somewhat difficult to move without damage. Lumps of sandstone should be mixed among the soil in which it is to grow, as it naturally lives with its roots among the crevices of brick or stone, as the case may be; in the absence of sandstone, use soft brick or potsherds.

Asplenium Ruta-muraria, or wall-rue, is more curious than beautiful, and is interesting because as the young plant ages the fronds change their character. This is found on rocks and old walls, and will grow better in brick rubbish than ordinary soil. If, therefore, it is grown in a case with others, this must be provided for it; and as a bit of imitative rock-work rather adds to the picturesque effect, these conditions can be provided.

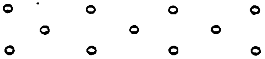
Adiantum capillus-veneris (Maidenhair fern), a universal favourite, in general cultivation; found in moist caves and attached to moist walls, in Cornwall, Devon, South Wales, and Ireland; Mr. Moore says also in "the warmer parts of Europe, Asia, Northern Africa, the Canary and De Verde Islands, and North America." It is especially adapted for Wardian Cases and for growing singly in pots under glass.

All these are really beautiful subjects, and any one of them would do well in a flower-pot such as we have mentioned, and under a shade; but there are many others; each grower has his favourites, and those who furnish cases have particular notions of their own,—Mr. Kennedy, for instance, gives the following list of plants as the best in his opinion:—

Adiantum capillus-veneris
—————Cuneatum
—————Formosum
—————Cunninghamii
Aspidium falcata
Asplenium flabbilifolium
——————marinum
Doodia caudata
——— lunatata
Gymnogramma ochracea
Lycopodium formosum

Lycopodium ceonum
————— denticulatum
Nephrodium exaltatum
————— molle
Orechum lucidum
Pteres serrulata
——— nastata
——— Sinensis
——— colina
——— palmata
Uyrolepus rugulosum.

These complete the list of plants recommended by Mr. *Kennedy for* a case. Those who propose furnishing one should, from the lists we have given, select the number they require. But, presuming the case to be two feet six inches one way and twelve or fourteen inches the other, there would be room for three showy ferns in the centre line, nine inches apart; and small specimens might be planted within two inches of the edge of the box, opposite the vacancies between the central three; the plants would then be in this form:—



—those nearest the glass being very small and very close; and the plants must be chosen accordingly: the three centre ones might be such as would grow tall, fine, and strong, and reach perhaps eighteen inches, while those nearest the sides may be naturally dwarf.

PLANTING THE CASE.

As the soil fills the solid portion of the case, the door, which should be sufficiently large to enable us to plant properly, must open to the full extent; the insertion of the plants is a very simple process. The roots should be spread (not crowded into a small hole), that all the fibres may be free. This can only be done by opening the hole large enough to extend the fibres in; and as the soil is full of crocks or small pieces of broken pot, there must be no pressure used, or the sharp edges may cut or bruise the roots; cover up the fibres well, but by no means deep. As the four plants nearest the glass on the opposite side or front come between the centre ones, there is nothing to interrupt the placing of them after the three centre or conspicuous plants are in; but they may be the first put in, if these plants be accurately marked. The four next the door must be put in last; and when the bottom is properly perforated, a slight watering will settle the soil to the roots, when the door may be closed—not to be opened again perhaps for months. But there is this advantage in a proper door, that we can on occasions wipe the vapour off the inside of the glass; these occasions are only when we desire to show the plants off to advantage, which would be when visitors are expected, and the vapour makes them almost invisible. Like a hundred other things which are contrary, this will happen when we are more than usually anxious to show them off. It will frequently occur that one or more of the plants do not progress nicely, but show symptoms of decay; not from any mismanagement in the case or the planting, but from some unperceived injury before it was planted. As soon as we are convinced that a specimen has gone, or is going, wrong, let it be removed, and another put in its place, because the appearance of the little collection is greatly marred by anything like the ill-health of one plant; besides, almost one of the first consequences is mildew, and this would soon spread through the whole family. Again, when the lower fronds have matured themselves and changed colour, as a prelude to the regular decay of nature, they should be removed. It is a perfect absurdity to go upon the confinement principle, and leave plants to their fate; because, although a decaying frond in the open air dries and is no detriment to the plant, it is a very different thing when shut up, where, instead of drying, it damps, gets covered with fungi or mildew, and infests the rest of the plants. Bearing in mind that a decaying or decayed leaf is injurious, even to plants in green-houses and frames, and that they ought to be instantly removed, how much more important must it be to take them out of a confined Wardian Case. When a leaf is discoloured, it has completed its functions and commenced decay; or it has been prematurely affected, and can no longer help the plant; therefore, its removal should be a matter of course.

TREATMENT OF THE PLANTS GENERALLY

The principal points that demand our attention in a collection of plants shut up, are watering and giving air; and, notwithstanding all that has been said and written to the contrary as to depriving the plants of *both, they* are when properly administered essential to the well-being of the collection. Not that we are to be wantonly opening the door and pulling the plants about, nor that we are periodically to sluice them, as ladies too often do their potted pets; for either course would be injurious. We should never think of giving water while the plants are growing well, and exhibited no signs of want. Ferns will, with some exceptions, bear more ill-usage than any other plants; extremes of dry and wet seem to have but little effect on them out of doors, but either of these extremes would be injurious to them in confinement. When, therefore, the soil is to all appearance dry, we must not be tempted to use the water-pot. We may safely wait until the plants indicate their want by flagging a little, and this may not be for months; because, as we have before explained, the water necessary for the health of plants is held in the soil, and it is only when more is applied than the soil will hold that any runs out at the bottom, even if the holes are all open. When, therefore, the plants show evident signs of distress, and not before, administer water all over the soil to fill it as it were throughout, and this may be done until it runs through. Perhaps this watering may last half a year before it dries again; but whether for a long or short period, never be governed by the time or the season, but by the plants themselves; for they ought to be dry enough to suffer a little before we give them relief. There is nothing to prevent a long life of healthy growth; and when a plant gets too large for its situation, the prison it is confined in must be opened, the root can be taken up and separated, and the best portion returned to its place, or another variety may be chosen. These glass cases must not be treated like a sealed book, never to be opened. Common-sense tells us that the case is open when we first prepare it, and it could only be in the same state if we re-arranged the plants every year, or changed the entire collection.

Those who are desirous of making the case more of a picture, can, after it has been filled as we described with soil appropriate to a general collection, form one portion of it into mimic rocks, by merely placing burrs or lumps of stone in the form they like best, and so make a bit of rugged scenery. On these rocks mosses may be grown, or small Alpine plants; while the rest of the case may be occupied with ferns. The mosses adapted for rock-work in cases are numerous.

Bartramia, or the Apple Moss, of which Pomiformis is the best; *Bryum*, or the Thread Moss, of which there are several varieties; *Dicranum*, or Fork Moss, of which all but *Squarrosum* are good (that one wants great moisture); *Dydemodon* offers three or four varieties; *Eucalypta*, or the Extinguisher Moss; *Fumaria*, or Card Moss; *Grimmia; Gymnostomum*, or Beardless Moss; *Hookerii; Hypnum*, Feather Moss; *Polytrichum*, Hair Moss; *Pterizonium; Tetraphis; Trichostomum*, or Fringe Moss; and *Weissia*. All these are more or less adapted to the Wardian Case, and must be chosen for their particular feature or general appearance. Nearly all will flourish on a thin layer of pure vegetable mould—say that from rotten leaves placed on half-rotten brick or sandstone; but these plants mostly bring away the soil they grow in, for it is rarely any thickness, and comes off in removing the moss. Some strike into a depth of soil. As a proof, however, that moss brings away with it the soil necessary for its vegetation, a friend of ours brought some of the blood-stained moss from INKERMANN, and we carefully laid it on part of an old ruin, where portions of it have located, and look as healthy as any that come naturally. True, there was not much of it lived, but confinement in a box with earth and bulbs, also taken from that awful spot, did more towards killing it than anything else. To conclude this part of the subject, we may observe that a Wardian Case affords an opportunity of indulging in any taste that the owner may possess; and so he but confines his selection to things which will grow in the same atmosphere, he may make great changes in the soil, for he may even sink a small pot of brick-rubbish or sand, or any other medium, for any particular subject that requires it.

GIVING AIR OCCASIONALLY.

We quite subscribe to the propriety of excluding the external air. The case should be made so that when the door is closed it should be as nearly "air-tight" as possible; and as these cases are adapted for the rooms of manufacturing towns, where the atmosphere is generally foul, they cannot be opened too seldom, and certainly the less frequently the better. But there are times when even a London atmosphere is comparatively pure—for instance, day-break on a summer's Monday morning, with a brisk east wind, when we may from an eminence see many miles—and where the air is thus clear, there can be nothing deleterious. We should, therefore, wait for such occasions, if we wanted to do anything with the case open. We mention Monday morning because the furnaces of manufactories have been idle a whole day, instead of vomiting noxious vapours. London has been free from the million fires that will begin in an hour or two to send their smoke into the atmosphere. The admission of pure air can never be detrimental to plants. The prevention of stagnant moisture by ample drainage cannot be injurious. The effects of a Wardian Case on plants confined, is to prevent the loss of moisture by evaporation, and this is a reason for not opening the case long together, nor too often. The giving of air when it can be done safely, that is when it is pure, and for a short time, does not lose much water; but if the case were left open, it would destroy the character of the medium. The vessel would cease to be a Wardian Case in the understood sense of the word; and, although any liberty we please may be taken in the country, where a case may be open or shut, or may be made like a conservatory, and be open half its time without damage to the plants, the chief aim and object of it in densely-populated manufacturing towns is to shut out the deleterious atmosphere.

The culture of ferns generally, upon a larger scale, may be treated of hereafter, but we may here offer a few closing remarks upon the culture in covered pots, because they are in themselves Wardian Cases on a smaller scale. The pots, as already described, may be covered so as to perfectly exclude the external atmosphere, and the soil may be different in every one, if necessary. Therefore, whatever be the nature of the fern to be grown, its habit may be studied, its wants anticipated, and its health secured, so far as the nature of the soil, the temperature, and the degree of moisture may be concerned, by the pot, its contents, and its treatment. The covering of glass may also be adapted to the height of the specimen. A pot for this purpose has been patented, its novelty consisting in the gutter round the rim, into which an opaque cover or a glass shade fits loosely; but, as if in use for striking cuttings when it is desirable to shut out the air, the gutter is filled with water or wet sand. Here, however, we have a practical lesson upon the subject of drainage. Although many authors have given us their ideas on the subject of fern cultivation, all agree that the pots in which they are grown shall be well drained; and many, be it remembered, have grown them as well as they can be grown. We have seen at Coventry, at the exhibition of the Warwickshire Horticultural and Floral Society, seven or eight collections of ferns in pots, splendidly grown and exhibited, all well drained; and we ought to know that the confinement of the plant above ground cannot render drainage less necessary. Drainage is to get rid of superfluous moisture: what would be thought of a man who stopped the hole at the bottom of a pot? Yet, in what point does the mere shape or size of the vessel in which a plant is grown, render it more independent than a common flower-pot, of so important a rule as that for securing the escape of water in excess? As pots may be obtained of any size, we are not limited so much as we are in Wardian Cases, because one plant is enough for each; therefore, one can be planted in sandstone, another in rich loam, a third in peat, and so on, according to the nature of the species, which has alone to be considered in this particular; and a stand of ferns, even if the same in number as those in a case, may be more diversified, because they need not be of the same nature nor habit, each one being grown for itself, while those in a case must, to a certain extent, be confined to one and the same treatment. The glass shades or covers may be of the form best suited to each individual plant; and from a single pot for each window to a collection for a large stand, everybody can indulge his taste in cultivating or selecting the most beautiful, according to his own notions of what is curious or elegant.

THE PROPAGATION OF FERNS.

These plants will propagate well by dividing the roots when the foliage has begun to discolour and die down, or after it has quite decayed. First, you must take the root up carefully, and clear it of all the soil, that you may see what you are about, and then so separate the parts that each piece of root may have an eye to grow. Let these be planted snugly in pots of rich, light soil, and placed in a shady part of the green-house, or in a cold frame. We have divided some this year after the fronds were growing; and, so far as we can see, without their suffering any check. They may remain under glass till they have established themselves, and then may be planted out where they are to remain. Ferns multiply fast by these means alone, but we have some planted among rock-work that spread a good deal; and we being loth to disturb the original plant, dug out the soil round them, and separated the surrounding pieces, leaving the principal root firmly fixed in its original place; but there is no doubt that the operation is easier performed when the whole plant can be taken up. But there is another way of propagating ferns—that is from seeds, or *spores*, as they are called. The peculiarity about ferns is that their bloom is like small brown specks, variously disposed at the back or under the side of their leaves or fronds. When these are fully developed, and the seeds are perfected, they will rub off like so much dust. This dust is to be carefully saved, and sown on very light but good soil, placed on broad seed pans, perfectly level. Of course the dust or seed must be sown evenly over the surface, and covered with a bell-glass—the shallower the better. As watering them in the ordinary way is out of the question, the earth must be moistened from below; the pans must be set in water. The glass must be smaller than the pan, so that the edge of it may be pressed down into the soil. But the patent pans and pots with grooves or gutters in the upper rim to receive the edge of the glass (already described in the pots for fern culture in the dwelling-house), do away with the necessity of touching the soil; because, if the groove be filled with sand saturated with water, it effectually excludes the external air, and thus answers the purpose. The pots or pans are to be set in the green-house; some of the seed will germinate, and the glasses must not be moved till they have begun to grow, but when they have made some advance, and thrown up one or two of their leaves or fronds, they must have air, by tilting the glass a little an hour or two every day; when they have grown strong, the bell-glass must be removed, and a common hand-glass may be covered over the pot or pan. In this way we raised a few from seed, sent to us from the Philippine Islands; but, as we had no great fancy for ferns at the time, we gave the pots and plants to a friend, who contrived to lose them all. When large enough to handle, they may be potted three or four in a four-inch pot, and be grown on till they are too close, and then separated and potted singly. The dust or seeds of ferns is like an almost impalpable powder, and might be carried by the wind any distance. But they frequently fall and germinate in Wardian Cases; and when some grow in and on walls, they are washed by the rain down the brick-work, and not unfrequently grow in quantities at almost every crevice. The soil, therefore, for several of the species, even for the sowing of the seed, must be assimilated in some degree to the nature of the stuff they naturally grow in; but this is got over by giving it all the elements. Fibrous loam, peat, sandstone, leaf mould, and pure sand comprise all the varieties required in compost.

Therefore, two parts loam from turfs rotted—that is, cut as if for laying down, and stacked until the grass has rotted in it—supply both the loam and leaf mould; because, when you cut them for laying down, there is as much vegetation as loam. Two parts of this—one part turfy peat, one part broken sandstone, and half a part of sand—supply all that ferns require. Let the loam and turfy peat be rubbed through a coarse sieve before they are measured, because, after you have rubbed as much through as you can, there is some waste lumps, and these would affect the proportions. The sandstone (or if that cannot be had, broken crocks of soft flower-pots, which should be burned if old and soddened) should be broken so that it may be made to go through a sieve with half-inch meshes, and thus prepared, measured and mixed well together. In this compost, which is rich in those matters which are important, the young seedlings will not fail to do well, from those of species that grow in a swamp to those which spring up on a wall. The water, which being fed at the bottom, will rise enough for the purposes of vegetation without requiring any to be given at the top. When the young plants have acquired sufficient strength under glass, they must be gradually inured to the open air, and not be removed all at once.

AN ENLARGED CATALOGUE OF THE BEST FERNS, ONLY TO BE GROWN IN WARDIAN CASES, COVERED POTS, OR ON ROCK-WORK UNDER GLASS.

British Ferns.

ADIANTUM.
„ Capillus veneris.
ASPLENIUM.
„ Marinum.
„ Ramosum.*
„ Fontanum.
HYMENOPHYLLUM.
„ Tunbridgense.

HYMENOPHYLLUM.
„ Unilaterale.
LASTREA.
„ Fœnisecii (recurva)
SCOLOPENDRIUM.
„ Vulgare proliferum.
TRICHOMANES.
„ Radicans.

Exotic Ferns.

ASPLENIUM.
,, Ebeneum.
ACROPHORUS.
,, Hispidus.
ADIANTUM.
,, Affine.
ASPLENIUM.
,, Fœcundum.
,, Dispersum.
,, Polymorphum.
,, Fragrans.
,, Belangeri.
,, Nidus.
,, Palmatum.
,, Monanthemum.
BLECHNUM.
,, Lanceola.
,, Intermedium.
CYRTOPHLEBIUM.
,, Augustifolium.
DAVALLIA.
,, Canariensis.*
,, Pentaphylla.
DORYOPTERIS.
,, Sagittæfolia.
DIPLAZIUM.
,, Shepherdii.
DRYNARIA.
,, Fortunii.*
,, Pustulata.
DOODIA.
,, Caudata.
,, Lunulata.
,, Aspera.
FADYENIA.
,, Prolifera.
HEMIONITIS.
,, Wordata.

LASTREA.
,, Rileyana.
,, Glabella.
LOMARIA.
,, Lanceolata.
,, Nuda.
,, Patersoni.
LITOBROCHIA.
,, Leptophylla.
NIPHOBOLUS.
,, Lingua,
,, Pertusus.
,, Rupestris.*
NEPHROLEPIS.
,, Pectinata.
ONYCHIUM.
,, Japonicum.*
PLATYLOMA.
,, Rotundifolia.*
,, Brownii.
PLEOPELTIS.
,, Pinnatifida.
POLYPODIUM.
,, Pectinatum.
,, Drepanum.
,, Filipes.
PHLEBODIUM.
,, Lycopodioides.
,, Stigmaticum.
,, Squamulosum.
,, Percussum.
POLYSTICHUM.
,, Mucronatum.
PTERIS.
,, Geraniifolia.
,, Crenata.
,, Serrulata.*

SCOLOPENDRIUM.
„ Krebsii.

SELAGINELLA.
„ Wildenovii.*

Those marked * are especially for pot-culture in glass erections.

N.B.—Mr. Sim, of the Fern Nursery, Foot's Cray, who has great experience, approves of the above selection.

AQUARIUMS.

As we have already described what form should be adopted in a Wardian Case, it will be recollected that we set twelve or fourteen inches as the limit from back to front, that the aquarium might be the same, and our reason was, that where there is water, the objects that are on the opposite side cannot be very distinctly seen if they are more than that distance ; in many that we have seen, where there was eighteen inches of water to look through, the objects were not distinct. The case should be made of single panes of glass at each side and each end. Supposing the width of the window to be two feet six inches, the front and back panes of glass would be two feet six inches by two feet for the height, and each end glass would be twelve or fourteen inches by two feet for the height. We need not give any other direction, except that the bottom may be made to match the Wardian Case, and be filled up to the glass with silver sand ; upon this may be loose lumps of stone in the way of rocks, and shells may be used to plant various aquatic plants in, and drop to the bottom. The water to be used should be from the river, but settled before it is used, that there may be as little impurity as possible, but above all things avoid spring or pump water. Among the first plants to deposit in your aquarium, get—

Vallismerea spiralis, an Italian plant, frequently exhibited for its singular circulation, which may be seen very distinctly under the microscope; this must be grown at the bottom.

Hottonia palustris.

Myriophyllum spicatum.

Callistreche, or Starwort.

Anacharis Alsinastrum is more curious than beautiful, grows with or without roots. This is called the new water-weed ; but it is necessary to fix it to the bottom to make it an object for the aquarium ; this is managed by attaching a stone to it or planting it firmly in a shell ; it soon throws out rootlets from all the joints, as is the case with water cress.

Stratoides Aloides. This, says Mr. Brigden, who has paid great attention to these matters, grows equally well with or without a root. In form, it is like the crown of a pine-apple. This may be thrown into the water, where, if the bottom leaves be trimmed off, it soon forms a root, when it may be fastened to a stone or shell, and sunk in the bottom to fix itself where it is wanted.

Polamogeton is a water-plant, of which there are fifteen species or varieties known in this country. These grow well in a tank, spread out their branches, form rather a conspicuous feature among the plants, and bloom freely, producing a striking effect.

Hydrocaris morsus ranæ, or common frog-bit, common in all our rivers, is very curious when in flower, and should not be omitted.

Alisma, the water-plantain of the old botanists. It is a very conspicuous object in the aquarium.

Reverting to the Starwort, it is not very unlike common duckweed : a pretty plant of delicate green, and appears on the surface. As most of these simple weeds are useful to some of the living creatures that we shall introduce presently, it is well to have them. There are many species of the MYRIOPHYLLUM—already mentioned, as a genus—but *Spicatum* is the best. The leaves are pretty, and the structure altogether elegant.

We have mentioned hitherto only such plants as may be used in very small aquariums ; but, as we have no right to limit the size nor form, we shall mention a few more plants that are adapted for somewhat larger space, and which will do for out-of-door aquariums, without going into the varieties of each, which would lengthen our list too much. Mr. James Lothian, in a little work on Alpine or Rock Plants—quite a fancy little book for ladies—goes more at length into these matters, but, substantially good so far as he goes, has modestly left out of his title all allusion to aquariums; but, he couples his rocks with water, as if we had no rocks in the interior, and gives some excellent lessons on aquatics, which from the title nobody expects to find. Nevertheless, his choice of plants for aquariums is a useful list. He does not profess to be original. How can a catalogue of plants be original so far as names go? But, so far as his instructions go, he has done it creditably. We cannot be original, but from some hundreds we can at all events select the best, and our brief catalogue shall be select.

Alisma natans and ranunculoides.
Aponogeton distachyon.
Butomus umbulatus.
Caltha (marsh marigold) palustris fl. pl.
Callistriche autumnalis and verna.
Ceratophyllum demersum.
Eriocaulon septangulare.
Hippuris (mare's-tail) vulgaris.
Hottonia (water violet) palustris.
Hydrocaris (frog-bit) morsus and ranæ.
Hydropeltis purpurea.
Limosella aquatica.
Littorella (shoreweed) lacustris.
Lobelia dortmanna.
Myriophyllum spicatum and verticilatum.
Nuphar (yellow water-lily) advena, kalmiana, lutea, and pumila.
Nymphæa (white water-lily) alba and odorata.
Polygonum amphibium.
Potamogeton crispus, densus, lucens, perfoliatus, and pusillus.
Ranunculus aquatilis and heredaceus.
Scirpus fluitans and lacustris.
Sparganium natans and simplex.
Saggitaria (arrow-head) sagittifolia.

Stratiotes (water soldier) aloides.
Subularia aquatica.
Utricularia minor and vulgaris.
Veronica anagallis beccabunga, do. fl. alba and scutellata.
Villarsia nymphæoides.

These are the principal species and varieties that we may call hardy, and that are adapted more or less for tanks of any size. But we have now many aquariums under glass. Messrs. Veitch and Son, of the King's Road, Chelsea, have a noble one, in which, independently of an extensive collection of exotics, they grow the splendid water-lily, Victoria Regia; but these must be seen to be appreciated. Weeks and Company, of the same locality, have an open one, in which, by means of hot-water pipes passing through it, the water is heated; with the aid of a temporary covering during the colder months, they also bloomed the Victoria Regia; and, as in the warmer season, the covering was removed, this noble African lily was actually flowering in the open air. Many nurseries in various parts of the kingdom make the cultivation of aquatics a conspicuous feature in their business, and some of the public botanic gardens, as well as private noblemen and gentlemen, have had houses built and aquariums constructed for the purpose of growing exotic water plants. But we have wandered out of the drawing-room before we have furnished the aquarium with animated specimens of natural history, such as lizards, newts, diving water spiders, singing beetles, Hedrous piccus, preying manthus (very curious), gold and silver fish, Prussian carp, bull-head (miller's thumb), stone loach, minnows, eels, tench, roach, dace, gudgeon: any one or more of all these living creatures selected according to taste, give animation to a scene already interesting by means of water plants. The loach, bull-head, gudgeons, and lizards will furnish the bottom chiefly, while the others will keep the large *open space* alive. The principal attention that will be *required* will be changing the water, or rather refresh-ing it; by means of a syphon, it can be drawn off gently; and as fast as it runs out, you must supply fresh. If water is laid on, you have nothing to do but to set both taps running for a few minutes every day.

The aquariums in the Crystal Palace have a number of these specimens sporting about; but, however large tanks may be in width and height, all they are above twelve or fourteen inches from back to front takes from the good effect. We may be more fastidious than other people, but one of two things spoiled the *tout ensemble* in our estimation. There was too much bulk of water from back to front, or the water was thick, for we could not see properly anything that was on the opposite side. Fish appeared larger than they were and indistinct. Small beetles were lost altogether when they strayed too far from the glass we were looking through; and generally they do get as far off as possible. In one glass cistern which we saw in the Railway Arcade, London Bridge, there were eels, lizards, bull-heads, and loaches at the bottom close to the sand; roach, dace, bleak, and gold fish in mid water; beetles and spiders were descending and ascending the whole height and depth of the tank, but their resting-place was the surface,—and there it was we learned that one sort of beetle had the power of worrying other animals in an extraordinary way. Mr. Brigden, the owner, put one of them in among some small fishes, and the effect was magical. The whole were in the highest degree excited, and scudded about in every direction. The beetle was removed, and peace was in an instant restored. We mention this to show how necessary it is for those who have aquariums to take the advice of a practical man, or dealer in the living creatures that we have already sporting about, before we add anything to what is doing well. A friend of ours who indulged in such matters, used to sally out with a tolerably close-meshed landing-net, and dip out whole cargoes of mud, weeds, and filth from stagnant pools and ditches, to add to his live stock whatever he could find animated. These he kept in a tank out of doors, and from that he transferred at leisure whatever was new to his glass aquarium in the house. But all at once the in-door fishes began to die off, and some of the most expensive of those he had bought were lost. He had introduced something that was pernicious in some way or other to the happy family, and had to furnish his drawing-room aquarium again. It is positively necessary to take advice even in the furnishing of the first inhabitants.

But some will have an aquarium to keep one or two fishes of prey, their amusement being that of feeding them with living provender. For instance, a jack, or a perch, or both are procured, and just large enough to begin the destructive part of their lives. Throwing in a few small fry of any sort, and seeing them hunted and swallowed, is the height of the keeper's pleasure; but, generally speaking, the best fish to put in a tank for show, contrast, and variety, are a pair of small gold fish, another pair of silver, then roach, Prussian carp, dace, gudgeon, tench, bull-heads, loaches, and very small eels. All these will live without quarrelling, whereas a perch or a jack will, as soon as it is large enough to destroy, attack a thing half as large as himself and swallow it. Plants assist in the health of the living creatures, as well as form a pretty water-garden, effective in proportion to the construction of mimic rocks at the bottom, and the placing of the roots in a natural position,—all of which may be intrusted safely to the dealer in the first instance; and if you commence with only two or three fishes or water animals, to enliven the thing a little, nothing is easier than to add now and then to the stock whatever takes the attention most, and may be safely added. One point is necessary to impress on the mind in the management of aquariums: we must not feed the fish. Their food must come with the fresh water, which, as before observed, must be from the river; and, as that is given at the top, the other is drawn off near the bottom. A syphon is introduced to reach nearly to the bottom of the tank, and when charged by drawing up the water, the whole could be drawn off; but this is not desirable. It should not be lowered at all, but be *fed at the top* as fast as the syphon discharges it. The proper way is to have the tap that lets it in, the same size as that which lets it out; and then, by setting both running at the same time for ten minutes or a quarter of an hour daily, the water is refreshed sufficiently. But there is yet another condition necessary to secure success—the vessel must not be too much crowded with inhabitants. By keeping these things in mind, the aquarium will excite great interest.

FLOWERS FOR THE DRAWING-ROOM.

Too much is sometimes expected of plants in dwelling-houses. In a garden, flowers come to maturity, decay, and are replaced, time after time, almost mechanically, with others to succeed them. We remove whatever is past its prime to make room for what is to follow, and the beds and borders are kept in order by these means only. We have no right, therefore, to calculate that plants in drawing-rooms will be perpetually in good trim, any more than in the garden. All we can do is to select such as are longest in perfection, for the main subjects, and introduce gayer but more ephemeral plants for the sake of their perfume or their brilliancy. Geraniums, myrtles, camellias, and other evergreen shrubs, are always pretty in or out of flower; but if we have stocks, wallflowers, mignionette, sweet peas, china asters, and such like, we must make up our minds to the fact, which cannot be got over, that they are but a short time in perfection, and when their bloom has declined, we must supply their places with something else. Of the plants that do well and may be kept for years in a dwelling-house, we may mention camellias, myrtles, acacias, and geraniums. But the drawing-room in a dwelling-house should be like the conservatory among the glass-houses of all sorts. It ought to be furnished with the best from the other rooms. When, therefore, one plant goes out of flower, you get another that is coming in, and get rid of some altogether. There is another consideration that makes it desirable to keep up a good bloom of what we may call temporary subjects. They are cheap as well as attractive. One camellia would buy a dozen double stocks or pots of mignionette, yet both of these are sweet as well as pretty, and if they give us a month's bloom and perfume, there is not much to regret; but for those who appreciate what we call drawing-room geraniums, of which there is an interesting diversity of foliage, and all of them richly scented, a pretty garden of those plants only might be well kept up. True it is that there is nothing to boast of in the bloom, for it is for the most part very insignificant, but there is hardly a family that gives us so many forms of leaf in so great variety and perfume. There is another peculiarity, which by no means deteriorates their value—they bear more ill-usage than most plants; as much privation of water or excess of moisture as they will bear with impunity will kill scores of other subjects. Moreover, they will bear shutting up better than any other plant that is so handsome; while their extreme beauty when properly attended to, fully compensates for any extra trouble we may take. The pelargoniums of the present day are beautiful while in flower, but they are almost alike in the character of their foliage, and, therefore, a whole house-full makes no show when out of bloom. The scarlet geranium is much gayer, and lasts very much longer. Suppose, therefore, a drawing-room stand (or the two windows, if not better occupied with the Wardian Case and aquarium), would accommodate a dozen plants. It may in January, February, March, and April, be furnished with hyacinths, tulips, crocusses, jonquils, narcissuses, and spring bulbs generally, for these would merely require to have been potted in September, October, November, and December—a portion each month:—In May, some of the bulbs would be still in flower; and, we might add, double stocks, mignionette, gold and double wall-flower. In June, a succession of stocks, China roses, scarlet geraniums, lobelias, and calceolarias. In July, roses; any of the bright flowering annuals, such as nemophila, *rhodanthe,* erysimum, balsam, and several of the *perennial* phloxes. In August, the addition of China asters, clintonia pulchella, campanula loyrii, phlox Drummondii. In September, a continuation of roses, with dahlias and other subjects not yet out of bloom. October still furnishes autumnal roses; dahlias continue in flower and even improve; the autumnal crocus, and what was always known as amaryllis lutea. All this time the scarlet geraniums, the calceolarias, balsams, and several other plants have continued to bloom; and now we must resort to successions of some of them, or have recourse to our stock plants of fancy geraniums and a plant or two of cestrum aurantiacum, forced plants of jasminum nudiflorum, and corræas, of which there are several distinct varieties that bloom all the winter months. Having given a hasty sketch of the few among the many plants that can be made to keep up a succession of flowers all through the year, we may be asked where are all those to come from? Supposing the situation to be in the centre of a smoky town, with no ground attached, and where nothing would grow if there were, our answer is, they must be obtained from where they will grow; or you must be content with Wardian Cases and aquariums. If you must have flowers, we have mentioned those which are easiest to procure and cheapest; but we suggest that you make an arrangement with one of the suburban nurserymen, who will, for a moderate consideration, furnish you the year round with a succession of plants, removing them when past their prime, and supplying others in perfection. We will, however. suppose for our present purpose that the locality is moderately healthy and clear—open enough to give plants a little chance. Every window of the house may be a green-house, and the drawing-room the conservatory; the rest of the house may be to keep such plants as we may rely upon, at least for evergreens in winter. If the air be actually pure, and in the country, you may grow anything; but if partially confined, there is one comfort—the most difficult plants for you to grow, are the cheapest to buy. For instance, stocks, mignionette, scarlet geraniums, and calceolarias are very difficult to raise and grow up in confined air, or even partially confined air; and these may always be purchased at nurseries at six shillings per dozen. So that the stock plants to keep may be the fancy-leaved geraniums which with care will grow *almost* anywhere; and the whole of the bulbs—hyacinths, jonquils, narcissuses, crocusses, and early tulips, which will grow everywhere; and the others required may be had as wanted. But, premising that most people will grow what will keep best with them, we have only to give a few general directions as to the culture of plants in dwelling-houses.

Plants require, even in a green-house, pot-room for the roots, good soil to grow in, plenty of air, enough, and only enough moisture, and protection against frost. Neglect in any of these requisites, even in the best of atmospheres, and the finest of green-houses, must be fatal. Why should we expect them to want less attention in a dwelling-house? Yet what is the history of millions of plants grown for the dwelling-houses of all classes? They are placed where they are intended to live. They are watered day after day to excess; the water runs into the saucer in which the pot is placed, and there the poor things stand till their roots rot; they get worse by degrees, until they can stand it no longer. The leaves drop or dry upon the stems, and the good people think what a pity it is plants will not live in their locality; or the plants are not watered at all unless a shower of rain can get at them, and they go off somewhat more suddenly. Now, these two extremes would equally kill a plant if it were in a duke's conservatory; therefore, the dwelling-house must not be blamed in either case. But let us give a history of many other rather more fortunate plants. Sometimes they are watered, sometimes not. They are watered before they quite die for want, and they dry up before the roots are quite rotted by wet: with some luck on their side, they live a good while. At last, they die of decline. They have filled the pots with their roots, which are matted into a solid lump. No water can go through them, no nourishment reach them. *They die for* want of pot-room, but they would have died just the same in the Chatsworth conservatory. It is not the dwelling-house that killed them. Well, other plants perhaps are placed in a balcony all the year. The rain fortunately preserves their lives, but the September frost comes and cuts short their career. It is, in fact, the withholding of certain conditions which kills the plant, and it would be the same everywhere, place it where you might. When plants are purchased, it should be at nurseries; and if, on turning out the ball of earth from one of them the roots are round the outside, let the nurseryman shift it into a larger pot before you have it home. We are supposing the plant to be a good one, not stock, or aster, or any temporary thing, but a geranium, a camellia, or any other plant we want to keep for years. When at home, the first care should be the watering; and, as a standing rule, never do this while the surface is even damp, and never let it stand in water, for it is death. Better is it to let a plant actually flag before it has water than water it before it is required. If you must stand the pot in a saucer—and generally this must be the case in a dwelling-house—let the plant have water till it runs through; but every drain must be thrown away; and we recommend the use of those saucers which keep the pot off the bottom, for unless the hole be clear and dry, there will be mischief. Having attended to the watering, the next important point is to give air as much as possible, for no plant can have too much if the weather be mild. Then, bear in mind that, although a plant may have been shifted when you had it, time fills the pots with roots again, and we must give it more room. If, therefore, you cannot get a larger pot, and the right sort of soil to fill up the extra room, your plant must go back: so that you must provide the soil and the pots, or give up your plants to a gradual decline. This may be done at the nursery they were bought at, or, if you have the means, get loam from rotted turfs, peat earth, and dung rotted into mould, in equal proportions, and mix up the soil yourself. In the winter months, the plants must be kept from the frost. In a window this is difficult, but a stand can be removed to the middle of a room, and if there has been no fire in it, let the doors of those apartments where there have been fires stand open, and that of the rooms where there are plants be the same, because the frost is not likely to affect the interior of a house unless very severe and lasting. During the winter months, be more than ever careful to give no water until the soil is dry; but when you do give it, let it wet all the earth in the pot and run through. Nothing is worse than small quantities of water, which probably reaches an inch down, and all the fibres below that remain dry and perish; the result of which is that leaves turn yellow, and dry on, or fall off, as the case may be. In the summer time, if you have an opportunity of putting the plants out in a shower of warm rain, they will feel the benefit of it; but in all the care to be bestowed on plants, see that it be not misapplied. Keep them as near the light as you can; give them all the air you can; water them the instant they want it, but not before; see that they are put into larger pots as soon as the present ones are full of roots; keep their leaves clean by washing now and then; stir the surface of the soil when it seems run together or become green or mossy—and your plants will be healthy. This is all the mystery about growing plants in dwelling-houses; and even in smoky London, plants treated in this way, would last three times as long as even careful people keep them, for there are as many killed with over-kindness as with neglect. Cruelty to plants is not an offence at common law, and those who supply millions annually to be starved or drowned, would be sorry to see a check on either cruelty or kindness.

INDEX.

Apple trees, 17, 118, 170, 186, 207.
Apricot trees, 40.
Aquariums, 309.
Artichoke, 12, 29, 53, 76, 94, 111, 130, 146, 161, 180, 202.
Asparagus, 12, 29, 53, 76, 94, 111, 130, 146, 161, 180, 202, 221.
Auriculas, 21, 42, 65, 85, 104, 122, 140, 155, 173, 192, 212, 228.
Almond trees, 40, 214.
Alexanders, 53, 130, 146.
Arbutus, 87, 174, 194.
Aconite, 173, 192, 228.
Anemones, 20, 43, 65, 76, 85, 104, 122, 173, 192, 212, 228.
Angelica, 146.
Balm, 30, 34, 146, 161.
Balm of Gilead, 85, 104.
Basil, 55, 78, 95, 112.
Beans, 12, 30, 54, 76, 94, 111, 139, 140, 161, 181, 203, 221.
Beet, 30, 54, 77, 111, 131, 203.
Belladonna lily, 173.
Berberry bush, 187.
Borage, 131, 147, 162.
Borecole, 31, 54, 77, 95, 111, 131, 147, 162, 181.
Box, 171, 188, 210, 227.
Broccoli, 31, 54, 77, 95, 111, 131, 147, 162, 181, 221.
Bulbous roots, 21, 43, 66, 86, 103, 121, 154, 191, 192, 211, 227.
Burnet, 35, 56, 161.
Cabbages, 12, 31, 55, 77, 95, 111, 131, 147, 162, 181, 203, 221.
Candy tuft, 104.
Catalpa, 214.
Capsicum, 55, 78, 95, 112.
Cardoons, 12, 56, 78, 112, 147, 162, 181, 203.
Carnations, 21, 42, 65, 85, 104, 122, 140, 155, 173, 192, 212, 228.
Carrots, 12, 31, 56, 78, 95, 112, 131, 147, 162, 181, 203.
Cauliflowers, 12, 31, 56, 78, 96, 112, 131, 147, 162, 182, 203, 222.
Cedar tree, 229.
Celery, 13, 21, 56, 78, 96, 112, 131, 162, 182, 204, 222.
Celeriac, 56, 112, 131, 148.
Chamomile, 131.
Cherry trees, 18, 118, 136, 169, 170, 174, 186, 207, 214.
Chervil, 32, 56, 132, 147, 163.
Chesnut tree, 87, 187.

Christmas rose, 193.
Chrysanthemums, 173, 193.
Cives, 56.
Clary, 35.
Cockscombs, 104.
Colchicum, 140, 155.
Coleworts, 78, 96, 112, 132, 148, 163, 182, 203, 204, 222.
Coriander, 32, 59, 96, 113, 132, 163.
Corn salad, 32, 56, 147, 163.
Cresses, 13, 32, 78, 182.
Crocus, 140, 155, 228.
Crown imperial, 173, 191, 228.
Cucumbers, 13, 32, 56, 78, 96, 113, 132, 148, 163, 182, 204, 222.
Currant trees, 17, 41, 63, 118, 137, 188, 208, 226.
Cypress, 229.
Cyclamen, 193.
Dahlia, 104, 256.
Daisies, 155, 173, 193.
Dill, 33, 56, 79, 132, 149.
Drawing-room flowers, 315.
Drawing-room gardening, 287.
Egg plant. 104.
Elder tree, 170, 229.
Endive, 13, 33, 79, 97, 113, 132, 149, 163, 182, 204, 222.
Fennel, 33, 57, 79, 114, 149.
Ferns, propagation of, 305.
Ferns, catalogue of, for Wardian cases, 307.
Fig trees, 17, 136, 170, *225.*
Filbert trees, 40.
Finochio, 79, 97, 114, 132, 162.
Fir tree, 118, 152, 229.
Flowers for the Drawing-room, 315.
Fritillaria, 191.
Garlic, 33, 57, 79, 114, 133, 149, 182, 204.
Geranium, 177.
Gooseberry bushes, 17, 41. 63, 118, 137, 188, 208, 226.
Gourds, 57, 79, 95, 97, 104, 114, 133, 155, 167.
Grapes, 187.
Guano, 279.
Guernsey lily, 173.
Hamburg parsley, 135, 184.
Heartsease, 140, 155.
Honeysuckles, 104, 140.
Horse-radish, 13, 33, 58, 79, 133, 163, 182, 204.
Hyacinths, 104, 122, 173, 193, 212, 228.
Hydrangea, 85, 173.
Hyssop, 184.
Jasmines, 140.
Jerusalem artichokes, 14, 33, 59, 80, 168, 184, 205.
Kidney beans, 14, 30, 54, 77, 86, 94, 111, 130, 147, 161, 221.
Lavender, 60, 133.
Laurel, 174, 194.
Laurustinus, 194.
Leeks, 33, 58, 79, 97, 114 133, 149, 163, 183.
Lemon tree, 63, 90, 126, 143, 158, 177, 198, 217.

Lettuces. 14, 33, 58, 79, 97, 114, 133, 149, 163, 183, 204, 222.
Lilies, 140, 155, 174, 191, 193, 212, 228.
Liquorice, 14, 33, 58, 222.
Lombardy poplar, 87, 194, 229.
Love apples, 55, 78, 95, 112, 114, 133, 163, 183.
Magnolia, 87, 174, 194, 230.
Mangel wurzel, 54.
Marigolds, 133, 163.
Marjoram, 58, 60, 133, 149, 163, 184.
Marvel of Peru, 104, 122.
Medlar tree, 17, 187.
Melons, 14, 32, 56, 78, 79, 97, 114, 133, 150, 163, 183.
Mezereon, 214.
Mignionette, 45, 66, 85, 104, 123, 140, 155, 174, 193.
Mint, 16, 34, 58, 79, 98, 115, 184, 149, 183, 204, 222.
Mulberry tree, 40.
Mushrooms, 14, 34, 58, 79, 134, 149, 163, 183, 204, 223.
Mustard, 13, 32, 78, 80, 182.
Myrtles, 73, 126, 177, 198, ·217, 230.
Nasturtium, 58, 80, 98, 115, 149, 167.
Nectarine tree, 169, 187.
Onions, 15, 34, 58, 80, 115, 134, 149, 167, 183, 198, 205, 223.
Orange tree, 73, 90, 126, 143, 158, 177, 217.
Parsley, 15, 34, 59, 80, 98, 115, 134, 150, 167, 183, 205.
Parsnips, 34, 59, 80, 95, 112, 115, 134, 167, 183, 205, 223.
Passion flower, 85, 140.
Peach tree, 169, 187.
Pear tree, 18, 118, 169, 170, 186, 207.
Peas, 15, 34, 59, 80, 115, 134, 140, 167, 183, 205, 223.
Peppermint, 134.
Pineapple plants, 27, 74, 91, 108, 127, 144, 159, 178, 199, 218, 234.
Pine tree, 229.
Pinks, 86, 193.
Plants for Wardian cases, 293, 297.
Plum tree, 18, 48, 169, 170, 176, 186, 197, 207.
Polyanthus, 63, 140, 155, 174, 193.
Pompions, 57, 79, 97, 104, 114, 133, 167.
Pot-herbs, 35, 59, 80, 94, 98, 115, 135, 150, 167, 184, 205.
Potatoes, 15, 34, 59, 80, 98, 115, 134, 150, 168, 183, 205.
Purslane, 59, 81, 96.
Pyracantha, 195.
Quince tree, 17, 187.
Radishes, 15, 32, 35, 60, 78, 80, 98, 115, 135, 150. 168, 184, 205.
Ranunculuses, 20, 43, 65, 85, 104, 122, 173, 192, 212, 228.

Rape, 13, 32, 78.
Raspberry, 18, 41, 63, 137, 158, 208, 226.
Red beet, 95, 131, 162, 181, 202.
Red cabbage, 162, 181.
Rhubarb, 81.
Rocambole, 23, 57, 79, 149.
Rosemary, 60.
Rose trees, 67, 86.
Rue, 60, 184.
Root of scarcity, 30.
Rampions, 60, 116, 135.
Rhododendron, 174.
Sage, 60, 98, 116, 168, 184.
Salsafy, 35, 59, 80, 98, 135. 168, 184.
Savorys, 60, 98, 184.
Savoys, 35, 55, 77, 211, 131, 147, 162, 181, 203.
Scarlet beans, 86, 104.
Scorzonera, 35, 59, 80, 116, 135, 184.
Sea cabbage, 55, 77, 168.
Sensitive plants, 105, 123,
Service tree, 187.
Shallots, 33, 57, 79, 114, 133, 149, 182, 204.
Skirrets, 35, 59, 80, 168.
Small salading, 15, 35, 60, 81, 98, 116, 135, 150, 168, 184, 205, 223.
Snowdrop, 228.
Sorrel, 35, 56.
Spinach, 16, 35, 60, 81, 98, 116, 135, 150, 168, 184. 205, 223.
Stocks, 86, 123, 140, 155, 193, 212.
Strawberry plants, 16, 36, 60, 81, 87, 98, 116, 135, 150, 168, 184, 205, 212, 223.
Succulent plants, 90, 125, 126, 158, 198.
Sweet briars, 67.
Sweet peas, 104, 123.
Sweet herbs, 111.
Tansey, 16, 36, 60, 222.
Tarragon, 16, 36, 60, 98, 116, 222.
Ten-weeks' stocks, 45, 66, 86, 105, 140, 141, 155, 212.
Thrift, 171, 189, 210.
Thyme, 36, 60, 184.
Tree amaranthus, 105.
Tuberoses, 66, 86, 105, 123, 191.
Tulips, 105, 174, 193.
Tulip tree, 212.
Turnips, 36, 60, 81, 98, 116, 135, 151, 169, 184.
Turnip-rooted cabbage, 77, 112,
Vines, 18, 100, 118, 136, 152, 169, 187, 208, 225.
Virgin-stock, 105.
Wall-flower, 86, 105, 123, 141, 193, 212,
Walnut trees, 40, 87, 136, 187.
Wardian cases, 287.

HADDON, BROTHERS, AND CO., CASTLE STREET, FINSBURY.